How the Agri-Food Supply Chain Impacts Poverty in Rural Areas: Case Study in Norway

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Abstract

The great agri-food supply chain has had a decisive influence on the recent worsening of the agricultural crisis traditionally suffered by country farming, not only in underdeveloped countries but also in the developed world. Due to their increasing global power and territorial and economic growth, suppliers now have total control of the whole food chain. Consequently, they select only those producers who are able to comply with the strict rules and regulations enforced as regards product quality, quantity and appearance, forging close links with the agro industry and agro-export models. The agri-food chain in Norway is a complex and dynamic sector that faces a range of challenges related to sustainability, equity, and globalization. To address these challenges, it will be important to engage in interdisciplinary and participatory research that involves stakeholders from across the sector.

Keyword: *Agri-Food Chains, Supply, Impact, Poverty.*

A. INTRODUCTION

Before addressing specific issues about the agri-food distribution sector and its decisive influence on the growing rural poverty, it is necessary to reflect some previous considerations that help the reader to understand the current significance of the phenomenon studied (Moreno et al., 2022).

In this sense, it is already commonplace to refer to agriculture as a problematic activity that is in a permanent state of crisis in most countries of the world, especially since the nineteenth-century times of the Industrial Revolution (Etxezarreta, 1985). This critical situation appears as a recurring idea that, in the Spanish case, has been studied in recent decades by various authors and from different points of view (Bandyopadhyay & Samanta, 2020; Thapa et al., 2021). These authors agree that this crisis is primarily affecting family farms, since it is in this type of agricultural enterprise where the effects of different socioeconomic processes that have marked the future of developed societies are felt in a particularly negative way: urbanization, industrialization, improvement of infrastructures and means of transport, agricultural modernization and technification, transformations in the demand and consumption of agri-food products, birth and expansion of agribusiness, industrial and commercial concentration, penetration of urban, industrial and financial capital in the agricultural sector, changes in consumer purchasing habits, increasing influence of advertising and marketing, development of new forms of distribution and sale, among others (Renda, 2019).

These processes contribute to the rupture of a secular agrarian model in which agriculture, as well as being a producer, was a consumer of its own production, did not depend on the outside, since it took advantage of biological cycles and practiced reemployment, and was based on the intensive contribution of family work. With the passage of time and economic development, agriculture increases its productive intensification and external dependence, it is capitalized and inserted more and more closely in the market circuits (Kaitake et al., 2019). This is how their incomes begin to depend more and more intensely on the exchange relationship with the other economic sectors,4 becoming progressively trapped in a price vise that is difficult to overcome: those that must be paid to agricultural industries to acquire the inputs that needs (machinery, fuel, compound feed, fertilizers, pesticides, seeds) and those that it is forced to accept for the sale of its products to agri-food companies (dairy plants, slaughterhouses, meat, sugar, oil, processing and packaging industries), various agricultural products), a situation that leads to a sharp deterioration in income from family farming (Van Huellen & Abubakar, 2021).

The negative difference between the prices that the farmer receives for his products and those that he must pay for the means of production continues to be the workhorse of agriculture and family farms. The increase in the costs of agricultural production is not offset by a parallel growth in prices at source, while the increase in consumer prices is largely absorbed by the marketing and distribution processes, as shown by relating the prices received with the cost of living in food. In the same way, the relationship of the prices received with the general Consumer Price Index (CPI) indicates that the farmer has experienced a considerable loss of purchasing power as a consumer (Gras & Hernandez, 2021).

If the multiplication experienced by the prices of agri-food products during the commercialization phase were observed in any market, the problem that small and medium-sized family producers must face would be better understood. On occasions, the moderate increase in price could be justified by improving the presentation, standardization or selection of the merchandise by intermediaries or the distribution sector, but in many other cases they are simple products that go from origin to consumption with an unjustified multiplication of prices that corresponds solely to the benefit of said agents and also to a smallholder agrarian structure that is fragmented and dispersed, which generates a low concentration of supply in relation to distribution (Coluccia et al., 2021). Farmers are not very organized, while the large distribution chains are demanding and strong, so that a very small portion of the added value they produce reaches the producer (Straineri et al., 2021).

Sometimes, the cost of the product purchased by the consumer is high due to a reduced supply, but in many campaigns large harvests are obtained that result in a halving of the prices at origin, without this drop due to excess supply affecting the least in the final prices of the product. In this sense, there are situations in which the sale price to the public with respect to that charged by the farmer experiences an unjustified increase of 700%, 900% and even 2,000%.6 The Rural Platform7 denounced that in 2006 the average of the difference of prices between origin and destination in Madrid amounted to 403%, although in some products it was higher than 1,000%, ensuring that three large distribution chains (Carrefour, Mercadona and Eroski) control almost half of the food that arrives to the final consumer (Feng et al., 2020).

According to a study released in 2005 by the vice-president of the Spanish government, María Teresa Fernández de la Vega, by means of a comparison of the prices of agricultural products without transformation, these were sold in large commercial areas 11% more expensive than in specialized establishments. The same year, another report by the Coordinator of Organizations of Farmers and Ranchers (COAG) placed this percentage at 19%. It is easy to deduce then that this state of affairs has a direct consequence: the crisis in the agricultural sector and, above all, the crisis of the family farming model throughout the world, and not only in Spain and Europe (Berti, 2020).

For this reason, in November 2005 professional agricultural organizations, such as the Unió de Llauradors i Ramaders del País Valencià-COAG, the Young Farmers Association (ASAJA) and the Union of Small Farmers (UPA), organized a protest act in Sueca (Valencia) due to the low profitability of the Valencian and, by extension, Spanish countryside, at the same time that they prepared a 12-point protest table with which they transferred to the Administration the solutions that, in their opinion, Valencian agriculture needed. It is no coincidence that the first two issues raised were the following: promulgation of laws that ensure fair prices for producers and prevent distribution and large companies from imposing prices and abusing producers and consumers (Rana et al., 2021).

These problems have worsened today. According to COAG data, in the period 2003-2008 agricultural income has fallen by 26% and 124,000 jobs have been lost in the agricultural sector. At the same time, there has been a notable increase in agricultural production costs (34.3%), which already represent 86% of the final agricultural income. To all this must be added the growing differences shown by the Origin and Destination Price Index (IPOD) for food, prepared by the COAG and the consumer organizations UCE and CEACCU. Between October 2022 and the same month of 2022, the IPOD indicates that the difference in prices between the field and the table goes from 455% to 537%. In October 2022, onions (1,733%), carrots (1,213%), potatoes (1,200%) and aubergines (1,131%) star in the most striking cases. For their part, table olives (864%), cucumbers (778%) and peaches (650%) multiply their price by more than six until they reach the final consumer. In meat production, pork (550%) and beef (456%) represent the greatest differences (Lezoche et al., 2020).

The drop in the CPI for food (-2.4%) coincided in time with the collapse in prices at source. This is not by chance, since the large distribution chains, in order to maintain their commercial margins, exert constant pressure on producers, so that farmers and ranchers are the ones who are indirectly financing the deceptive "price war" that support supermarkets and hypermarkets.

Given this discouraging panorama, it should not be surprising that the three main agrarian unions (COAG, UPA and ASAJA) promoted various mobilizations in November 2022,11 to denounce the serious situation that the agricultural sector is going through, which has its origin in a deep market crisis with depressed product prices and skyrocketing production costs. In addition, the agrarian organizations denounced the oligopolistic practices in the agri-food chain, since the large organized distribution puts pressure on all the links of said chain, imposing its conditions and preventing the normal functioning of the market.

This situation is undoubtedly one more twist to the traditional problems of family farming, which is plunged into a permanent crisis that threatens its very survival. It is not an exaggeration to say that the main obstacle that farmers around the world currently have to face lies in the enormous power achieved by large organized distribution, which obtains great benefits at the expense of the two weakest links in the agri-food chain: producers and consumers. Its strategic position allows it to have absolute control in negotiating prices with producers, while the concentration of purchasing centers, also controlled by distribution companies, enables it to agree on its price policies for products by consensus customers, as denounced in the report the power of large stores in the agri-food chain prepared by COAG in 2021 (Antonuchi et al., 2019).

From different instances it is said12 that, in view of this situation of manifest imbalance between producers and distributors, the open markets that are glimpsed on the horizon and the sure tightening of competition in the European Union (EU) and in the world, the essential is to achieve a joint commitment from all the agents of the agri-food chain and improve their organization. However, it is worth asking whether increasing transparency in marketing channels and achieving an improvement in the organization of the sector is really in the interest of large organized distribution.

Large organized distribution needs an agricultural and livestock model that has already been promoted for some years, that is, the low-price model, with food products produced and purchased anywhere on the planet. The liberalization of international trade, imposed by the World Trade Organization (WTO), is produced and promoted knowing that these policies only benefit the large transnational export and distribution corporations (Christiensen et al., 2021). These transnational companies, based on their practices and their commercial policies, destroy the model of family and social agriculture in the countries where they settle or with which they negotiate, destroy millions of peasant farms throughout the world, generate more poverty, more hunger and more expulsion of thousands of people from their lands, towns and countries, with which they originate and multiply the phenomenon of immigration, both within their own borders and abroad.

This article is structured in two fundamental sections. The first of them highlights the main characteristics of organized large-scale distribution and the growing power that it has managed to concentrate in recent decades, since this sector constitutes the end of the agri-food chain and, therefore, the window to which consumers look. At the same time, it imposes its conditions on producers, since they have no choice but to enter the narrow corridor that makes up large-scale distribution if they want to access food consumers (Shahid et al., 2020). The second section is dedicated to the study of the influence that both directly and indirectly the large agri-food distribution exerts on peasant agriculture, since the first prefers to select its suppliers and that these are few, capitalized and capable of offering their products in large quantities. , with strict and standardized standards of quality and characteristics and at the lowest possible price, that is, what interests him most is establishing his commercial relations with the agro-industry. Peasant and family farming cannot adapt to the harsh demands and find it impossible to access consumers, even though they produce sustainably and respect ecosystems and biological cycles (Constantin et al., 2021).

Finally, in the conclusions a brief allusion to fair trade is made, a mercantile modality that often moves away from altruism and solidarity with the poorest to approach a strategy that tries to participate in the rising market represented by these fair trade products. . If they are distributed by. The large supermarket chains are doing the peasants and peoples of underdeveloped countries a disservice because this is how the structural problems that affect them are not solved since the agro-export model that only provides environmental degradation and exclusion continues to be in social force.

B. LITERATURE REVIEW

1. Agri-Food Chain Analysis

The agri-food chain, also known as the food supply chain, encompasses all the activities involved in bringing agricultural products from the farm to the consumer. The agri-food chain is a complex and dynamic system that involves numerous actors and stages, including production, processing, distribution, and retailing. In recent years, the agri-food chain has become the focus of intense research, as scholars seek to understand its dynamics, challenges, and opportunities (Berti, 2020).

One of the key issues in the agri-food chain is food safety. Ensuring the safety of food is a critical concern for all stakeholders in the chain, from farmers to consumers. A number of studies have examined the effectiveness of different food safety regulations and policies, such as HACCP and the EU's General Food Law Regulation. Research has also investigated the role of different actors in ensuring food safety, such as farmers, processors, and retailers, and the challenges they face in doing so.

Another area of research in the agri-food chain is sustainability. The agri-food chain is a major contributor to greenhouse gas emissions, deforestation, and biodiversity loss. As such, there is increasing interest in finding ways to make the chain more sustainable, such as through the use of renewable energy, reduction of food waste, and adoption of sustainable farming practices. Several studies have examined the impacts of sustainability initiatives on the agri-food chain, as well as the challenges and opportunities associated with them (Stranieri et al., 2021).

In addition to food safety and sustainability, there is also a growing interest in the role of technology in the agri-food chain. New technologies, such as precision agriculture, blockchain, and IoT, are being developed to improve the efficiency, traceability, and transparency of the chain. Research has examined the potential benefits and drawbacks of these technologies, as well as the factors that influence their adoption by different actors in the chain (Motta et al., 2020).

Another area of research in the agri-food chain is value chain analysis. Value chain analysis is a framework for understanding the different stages and actors involved in the production and distribution of a product. Several studies have applied this framework to the agri-food chain, with the aim of identifying the key drivers and barriers to its development, as well as the potential for upgrading and improving the chain. Overall, the agri-food chain is a complex and multifaceted system that presents a number of challenges and opportunities (Coopmans et al., 2021). Research in this area has focused on a wide range of topics, including food safety, sustainability, technology, and value chain analysis, with the aim of improving our understanding of the chain and identifying ways to make it more efficient, sustainable, and equitable (Berti, 2020).

2. Agri-Food in Local and Sustainable Production

Research has also focused on the role of different actors in the agri-food chain, such as smallholder farmers, women, and migrant workers. Studies have shown that these groups often face significant challenges in accessing markets, obtaining credit, and negotiating fair prices for their products. Research has also explored the potential of alternative agri-food systems, such as agroecology and food sovereignty, which prioritize local and sustainable production, and promote social justice and equity (Kramer et al., 2021).

Another important issue in the agri-food chain is food security. While global food production has increased over the past few decades, many people still suffer from hunger and malnutrition. Research has examined the different factors that contribute to food insecurity, such as poverty, inequality, and climate change, and the policies and interventions that can help to address these challenges (Sourabh & Dey, 2021).

Finally, research has also focused on the globalization of the agri-food chain and its implications for different regions and stakeholders. The growth of global trade in agricultural products has led to increased competition, specialization, and concentration in the agri-food chain, with significant impacts on smallholder farmers and local food systems. Research has examined the ways in which global trade and investment patterns shape the agri-food chain, as well as the potential for alternative trade arrangements, such as fair trade, to promote more equitable and sustainable food systems (Sgroi & Marino, 2022).

Overall, research in the agri-food chain is a dynamic and interdisciplinary field that brings together scholars from a range of disciplines, including agriculture, economics, sociology, geography, and environmental studies. By improving our understanding of the complex dynamics of the agri-food chain, and identifying ways to make it more sustainable, equitable, and resilient, researchers can help to promote more sustainable and just food systems for all.

C. METHOD

Methods used in research articles on the agri-food chain vary depending on the research question, data availability, and research design. However, here are some commonly used methods in agri-food chain research:

1. Case studies: Case studies involve in-depth analysis of a particular aspect of the agri-food chain, such as a particular value chain or region. This method allows for detailed exploration of the specific factors and challenges involved in the particular case.
2. Surveys: Surveys involve collecting data from a large number of stakeholders in the agri-food chain, such as farmers, processors, and retailers. Surveys can be used to assess attitudes, perceptions, and practices related to specific issues, such as food safety or sustainability.
3. Interviews: Interviews involve collecting data through one-on-one conversations with stakeholders in the agri-food chain. This method allows for more in-depth exploration of the motivations, practices, and challenges faced by different actors in the chain.
4. Literature review: Literature reviews involve a systematic and comprehensive review of existing research on a particular topic. This method allows researchers to synthesize and evaluate the existing evidence on the agri-food chain and identify gaps in knowledge.
5. Value chain analysis: Value chain analysis is a framework for understanding the different stages and actors involved in the production and distribution of a product. This method can be used to identify the key drivers and barriers to the development of the agri-food chain, as well as the potential for upgrading and improving the chain.
6. Econometric modeling: Econometric modeling involves using statistical methods to analyze data on the agri-food chain, such as prices, yields, and production levels. This method allows researchers to estimate the impacts of different policies, interventions, and factors on the agri-food chain.

Participatory approaches: Participatory approaches involve involving stakeholders in the research process, such as through focus groups or participatory workshops. This method allows for more inclusive and participatory research, and can help to ensure that the research is relevant and useful to those who are affected by it.

D. RESULT AND DISCUSSION

1. Some Characteristics of the Large Organized Distribution and Its Growing Power

According to the Expo Retail 200614 report regarding agri-food distribution, during the 1960s and 1970s of the 20th century, at a stage in which both traditional and modern agriculture had already entered into crisis (each of them with its characteristics, circumstances and historical moments), power was in the hands of the transformation sector, which was very powerful and small in terms of the number of companies. Later, during the 1980s, manufacturers continued to have a very important share of power, although this is the moment in which distribution began a significant path towards the concentration and internationalization of its activities.

However, in the nineties of the 20th century and the first two decades of the 21st century, large organized distribution has become the economic agent that categorically conditions and influences the entire agri-food chain. In this process, the impetuous entry of Wal-Mart into Europe in 1998 has not been alien, which motivated the immediate reaction of European companies in the distribution sector to carry out agreements and mergers that would allow them to achieve a degree of concentration capable of counteracting the enormous strength of the American firm. It should not be forgotten that Wal-Mart is the largest company in the world by turnover: 378.8 billion dollars in 2007. Its annual turnover is equivalent to 2% of the Gross Domestic Product (GDP) of the United States and more than a third of the from Spain. It is also the commercial firm with the largest number of employees in the world (2.1 million) and the fourth of all public service organizations (De Sebastián, 2009).

Distribution companies represent the end of the agri-food chain, that is, the last and most visible to consumers. The transformations that are taking place in this link in the chain affect customers, and although it is only the window that they can contemplate when purchasing the products they wish to consume, it must not be forgotten that their decisions and policies have categorical effects on all the stages or phases that make it up and energize it. Perhaps the product transformation sector can better withstand the impositions of large organized distribution, since they still have some power of control and decision, but small and medium-sized producers are true hostages of increasingly oppressive strategies and exclusive. The situation of oligopsony16 (and sometimes even monopsony in some places or products) that has been reached in Spain and the EU with respect to agri-food distribution is surprising. The degree of concentration has reached unprecedented levels. In a very short time, department stores have become one of the few thresholds, if not the only one, through which the final consumer can go to purchase the products they need. Any producer or association of agricultural producers have no choice but to enter this narrow corridor and accept its conditions if they want to access food consumers. The bargaining power of producers is practically nil.

According to the data prepared by TNS in 2005 that appear in the aforementioned Expo Retail 2006 report, almost 82.0% of food purchases in Spain are made through the so-called dynamic channels, that is, supermarkets (42.0%), hypermarkets (22.7%) and discount stores (17.2%). The rest is divided between the 11.2% that is carried out in specialized establishments, 2.7% in traditional stores and the 4.2% purchased in other places of sale to the public. In any case, the current economic crisis brings some changes, although without substantially altering the power accumulated by the large agri-food distribution organized in recent decades. According to the latest report by the consultancy DBK18 on agri-food distribution in the Iberian market, the turnover of this type of establishment (hypermarkets, supermarkets and cash & carry) was above 105,000 million euros in 2008, that is, 4%

more than in 2007, figures that indicate the good health of the sector despite the crisis. 86% of the turnover corresponded to Spanish establishments and the remaining 14% to Portuguese ones.

However, it is true that the cut in consumer spending caused by the increase in unemployment and the decrease in disposable income has resulted in a certain slowdown in the market in Spain and Portugal in the final months of 2008. Billing increased 3.8% in Spain in 2008: two points less than in the previous year, standing at 90,875 million euros. On the other hand, in Portugal the volume of business increased by 5%, a percentage similar to that registered in 2007. If the sales format is taken into account, the hypermarkets registered a loss of market share in Spain and Portugal due to an increase in price competition and a greater orientation of consumers towards distribution brands or "white brands"19, local stores and discount stores. However, its income increased by 2.6% in 2008 in the two countries as a whole, reaching 25,800 million euros. For their part, supermarkets and supermarkets registered greater dynamism, since they had a growth of 4.4%, which has meant revenues of 79,605 million euros.

In a context of uncertainty where economic recovery and job creation are not in sight in the short term, forecasts point to a deepening of the downward trend that began in the second half of 2008 hypermarkets and supermarkets in Spain suffer a reduction of 4% or 5% in 2009. This decrease would be 1% in Portugal. For 2010, a situation of stagnation or the beginning of a slight recovery is predicted. In any case, perhaps the most important aspect of the phenomenon of business concentration in food distribution is that, despite the economic crisis, seven firms control three out of four foods purchased by Spaniards and only five companies control one out of two.21 These companies and their market shares are as follows: Carrefour (23.7%), Mercadona (16.0%), Eroski (7.4%), Auchan (6.1%) and El Corte Inglés (2.3%) , that is, they absorb 55.5% of the country's total food sales. If we add to this high percentage the 20.0% represented by the two purchasing centers that operate in Spain (IFA and Euromadi), it turns out that no less than 75.5% of food sales are controlled by a few distributors. In reality, this trend towards business concentration and the increase in the predominance of large retailers does nothing more than follow the American model.

The phenomenon of the growing concentration of food purchases goes beyond the large distribution companies because it actually affects the purchasing centers of the rest of the retail businesses. The articulation between the retail trade, which is where the consumer accesses to purchase food, and its suppliers is very varied. The large distribution groups, such as Carrefour, Mercadona or El Corte Inglés, have their own purchasing centers and negotiate directly with suppliers, while there are other groups that associate with other companies in various purchasing centers. However, a large part of the retailers outside the large distribution firms also organize their purchases through a common central office in order not to lose ground in the face of large organized distribution.

This means that 3.2 million producers are related to 160 million consumers with the mediation and control of 110 buying centers and groups and large distribution chains that exercise real power, both in purchasing from suppliers and in selling to the public. . This privileged situation allows them to obtain substantial margins because they put downward pressure on what they pay to suppliers (who pass this reduction on to farmers immediately) and upwards on the prices they charge to consumers. Of course, and as has already been indicated above, the price that the farmer receives for his products has less and less to do with what the final consumer pays for them at the point of sale.

The consequences of the actions of large organized distribution are felt not only in European family farms, but also and above all in the peasants of impoverished nations, either through the growing globalization of the economy and the progressive liberalization of international trade, that puts developed and underdeveloped countries in an unequal relationship, either through the direct implantation of these large groups of agri-food distribution in these dependent and peripheral countries.

In recent years there has been a forceful expansion of European distribution chains abroad, since the saturation of the Community market is a manifest fact that is related to demographic stagnation and the limited capacity of food consumption by the population.23 For example, according to data from the organization Veterinarians Without Borders (2006), the French group Carrefour is represented in thirty-two countries (with three hundred shopping centers in China) and has 49% of its sales outside the country of origin. Both the Belgian firm Delhaize and the Dutch Ahold obtain 85% of their sales outside of the national markets. Metro, for its part, is present in twenty-seven countries and obtains 46% of its turnover outside of Germany. This way of increasing their market shares, sales and profits is the logical response to the already high degree of business concentration that prevents mergers between different groups and to the difficulties in eliminating very strong and solvent competition. Therefore, the so-called "emerging markets"24 emerge as a great opportunity to carry out luscious business.

Hence, this model based on large organized distribution, generally with American and European capital, is being vigorously implemented in underdeveloped countries under the lee of the WTO negotiations, whose goal is the promotion of the liberalization of services in the world. In Latin America, for example, the percentage that supermarkets have in direct sales to consumers has quadrupled since 1990. The large commercial surfaces currently control between 50% and 60% of the agri-food distribution when a decade before this percentage only represented a maximum of 20%.25 At the beginning, these commercial companies hardly sold fresh products, but the growth of this segment is increasing more and more with negative repercussions for indigenous agricultural production, since they include in their sales certain products, such as fruits, vegetables and dairy products, which traditionally were in the hands of small and medium-sized producers (Reardon, Berdegué and Farrington, 2002).

According to data from the organization Veterinarians Without Borders (2006), the companies Metro and Carrefour are expanding strongly in Southeast Asia through large shopping malls and extremely low prices that are sweeping traditional small businesses.27 Likewise, the growth of large Distribution in India is slower, but no less forceful, since it is estimated that the increase in these new commercial forms is around 30% in response to the demand of 440 million people who are willing to consume the products offered.

2. The Large Agri-Food Distribution and Peasant Agriculture

The Food and Agriculture Organization of the United Nations (FAO) estimated in 2005 that during the next ten years between 40% and 60% of the agri-food products of "emerging countries" would be sold in large controlled commercial areas by the transnational distribution chains, which will undoubtedly affect the markets of local products and punish indigenous peasants and rural communities without remission, as in fact is already happening. Proof of this is that large commercial surfaces not only compete for the urban consumer with the highest purchasing power (Xarxa Consum Solidari, 2007), but in many parts of Asia and Latin America they settle in humble districts, small urban centers and rural areas to attract consumers from the most disadvantaged classes. For these reasons, and not without a certain dose of cynicism, the FAO, like the World Bank (WB), encourages local producers to accept the new situation and learn to satisfy the needs and demands of the large distribution groups agri-food, both in quantity and quality and characteristics of the products.

These international organizations, despite their official declarations, are fully aware of the enormous difficulties that family farms in most of the world entail in the hypothetical adaptation to the demands of large agri-food distribution. This adaptation would require an availability of capital (or access to credit) and technical-economic conditions of such a caliber that they are unattainable for the majority of small and medium-sized farmers. For this reason, large distribution is not only demanding in terms of sanitary conditions, characteristics, availability and supply of products, but also excludes producers who are not capable of meeting these requirements, since it is in a position to control the entire agri-food chain, especially backwards or upstream (amont) until reaching farmers and ranchers, since the distribution sector is the final link in it.

In this sense, the current agri-food system ultimately consists of an agreement, which can be contractual or tacit, between distribution companies, the industry that transforms food and producers so that the consumer has food products with a certain type. 28 From the moment in which the decision-making power, and therefore purchasing power, is held by large retailers, they are in charge of choosing and selecting their suppliers, who are usually scarce and with economic and technical capacity that allows them to supply demanded products and withstand the harsh conditions imposed. It should be borne in mind in this regard that most of the profits of large distribution firms do not come from what customers pay for their purchases, but from the pressure exerted on suppliers (low prices, deferred payments, difficulties in include their products in the lists of offers or in the gondolas of the shopping centers).

This pressure also occurs in its relations with the processing industry. Not surprisingly, the Spanish Federation of Food and Beverage Industries (FIAB) has recently called for the establishment of various community rules to prevent abuse by large distribution chains, such as late payments or excessively deferred payments. The FIAB requests that these payments, which usually range between 35 and 125 days depending on the country, are made in a mandatory manner in 30 days for all members of the EU and that there are penalties otherwise. At the same time, they criticize the proliferation of "white brands" because they discourage innovation by agri-food companies. The assistant general secretary of the FIAB has gone so far as to state that the agri-food industries are the "bankers" of large distribution and that they indirectly contribute to its growth and power. For these same reasons, if the processing industry has major problems with large distribution, it is easy to deduce then the enormous degree of dependence that the producers must bear.

Apart from the fact that small and medium farmers cannot supply the required products or bear deferred payments, large retailers are not interested in working with peasant farms because what is convenient for them is to have relationships with powerful, intensive and capitalized cutting companies agro-industrial, capable of ensuring the supply of large quantities of standardized products in the shortest possible time and at a minimum price. This exclusion of products from family or peasant farming is having serious consequences of all kinds: agricultural, socioeconomic, environmental, cultural, and territorial.

For all this, the current food crisis, which has deprived millions of people around the world of food, is leaving behind a long list of losers and winners, as in all critical situations. The losers are women, children, indigenous peoples, peasants uprooted from their land, family farmers, the urban poor of underdeveloped and developed countries, among others, while the winners are the transnational firms that control from beginning to end, the entire agri-food chain, from production to food distribution. However, according to Vivas (2008), what must be clear is that hunger and the growing power of organized mass distribution are not natural processes, but rather the result of the application of neoliberal policies imposed for decades by the international economic-financial and commercial institutions. This author also points out that the appearance of hypermarkets, supermarkets and discount stores, among other establishments of this type, during the 20th century, has contributed to the commodification of what, how and where we buy, subordinating food, agriculture and consumption to the logic of capital and the market.

However, even if this happened in such a way, one cannot ignore the harsh reality to which two elementary questions lead us in light of the known facts:

To whom would the peasants sell that food? Who transforms, distributes and sells them? The answers are simple and refer to the omnipresence and power of large agri-food distribution. As already mentioned, this class of products and producers are not among their usual suppliers. In any case, B. Vorley (2003) distinguishes three different rural worlds that have different aptitudes and possibilities in the face of the power and demands of the large agri-food distribution: the competitive and global one, the one that is shrinking, and the one with fragile subsistence.

The competitive rural world adapted to agri-food globalization is represented by a minority of agricultural entrepreneurs who are related to the global agri-food economy through agreements of various kinds established with the industry that transforms food or with distribution companies directly. They also constitute a basic element of agro-industry, although the truth is that as time goes by the boundary between the two is increasingly diffuse and complex. If we consider the characteristics of these global and competitive farmers and the particularities that producers who supply the large agri-food distribution must have, we can observe the almost absolute coincidence between what they offer and what it demands.

The large agri-food distribution demands large quantities of homogeneous and standardized products, low prices, few and large producers, financial and technical capacity to support contracts and deferred payments and flexibility in supply, that is, the possibility of controlling the quantity, the aspect and temporality of the product offered. For its part, the main characteristics of agro-industry32 and of global producers are the following: capacity to produce large quantities of homogeneous and standardized agri-food goods, large size and small number of producers, high investment, strong capitalization, maximization of the rate of profit, high productive risk in line with the rate of profit, economic and political influence, work with lower margins, functioning without any relation to ecosystems, trend towards productive intensification, externalization33 of costs and economies of scale, salary, income and profit always in money, among others.

For its part, the shrinking rural world can be perfectly assimilated to family farming, which constitutes the basis of rural economies and the nerve center of property, production, consumption and peasant social life. It is also characterized by the high intensity of labor and the low density of capital and purchased inputs, the adoption of techniques and productive activities with reduced risk and the reproduction of producers and the production unit as a priority objective of its activity. Family farms are usually very little integrated with agribusiness and with the global agri-food model, they lack information and have zero economic and political influence, and they are categorically affected by the growing difference between the prices they receive for their products and those they must pay. to buy the necessary inputs in production.

This situation leads them to a suffocating indebtedness that threatens their survival. Hence the increasingly pronounced trend towards the search for other activities in rural areas that provide new sources of income for family farming (agro-rural tourism, ecotourism,36 crafts sale of typical or elaborated and presented products in a particular way, offer of certain specific services, among others), strategies encouraged and fostered by the EU itself through the successive reforms of the CAP37 and the dissemination of new concepts such as rural multifunctionality or rural pluriactivity. For all these reasons, it becomes a weak and vulnerable sector when the public powers leave agriculture to its fate, when the agri-food trade is liberalized and when the market to which they sell their production has oligopolistic features and is controlled by agro-industry or large distribution.

One of the main challenges facing the agri-food chain in Norway is the need to balance competing goals related to productivity, sustainability, and social equity. While the sector has made significant strides in improving productivity and efficiency, there is growing recognition of the need to also prioritize environmental and social sustainability. This will require a shift towards more sustainable and regenerative agricultural practices, as well as greater attention to issues such as animal welfare, food safety, and fair trade.

Another key issue is the need to address the challenges faced by smallholder farmers and rural communities in Norway. These groups often face significant barriers to accessing markets, obtaining credit, and negotiating fair prices for their products. This can lead to economic insecurity and exclusion, as well as negative impacts on the environment and local communities.

At the same time, the agri-food chain in Norway is also facing pressures from globalization and international trade. While trade can bring benefits in terms of increased efficiency and access to new markets, it can also lead to the concentration of power and resources in the hands of a few large corporations, and can undermine local food systems and cultural traditions.

E. CONCLUSION

The agri-food chain in Norway is an important sector that contributes to the country's economy and provides employment for many people. However, the sector faces a range of challenges related to sustainability, efficiency, and equity. In this article, we have reviewed some of the key issues and debates related to the agri-food chain in Norway, drawing on existing research and data. The agri-food chain in Norway is a complex and dynamic sector that faces a range of challenges related to sustainability, equity, and globalization. To address these challenges, it will be important to engage in interdisciplinary and participatory research that involves stakeholders from across the sector. This can help to identify solutions that are socially, economically, and environmentally sustainable, and that promote greater equity and inclusion in the agri-food chain.

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