Case presentations

Paprika of Kalocsa – Hungary : Liberalisation et europeanisation

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Introduction and Outlines

The Paprika case raises two interesting issues. One is the Europeanization of the regulation on geographical indications in Hungary and its relationship with European market integration. Hungary has presented two European PDO applications: “Kalocsa ground paprika” and “Szeged ground paprika” (or Szeged paprika), which are in the process of examination. The other is the transformation of the former socialist system in the context of liberalisation and Europeanization of the Hungarian economy. Both the national regulation and the local situations are in moves. We will present first the product and the market of paprika in general and then address the two issues. We will conclude using the proposed grid for the cases presentations.

The Hungarian Paprika

1.1 The product

Paprika is a red powder made from grinding the dried pods of mild varieties of the pepper plant (Capsicum annuum L.), also referred to as bell peppers. The small, round, red "cherry pepper," is used for producing some of the hotter varieties of paprika. Paprika powder ranges from bright red to brown. Its flavour ranges from sweet and mild to more pungent and hot, depending on the type of pepper and part of the plant used in processing. Paprika should be considered a semi-perishable product. There are many products made of paprika, pastas, creams, etc., which are also popular.

1 This note was written according to the studies made in the FP5 IDARI project (Integrated Development of Agriculture and Rural Institutions in Central and Eastern European Countries):
- “Europeanization and the reality on the ground: Implementation of the European regulation on geographical indications for agricultural products in Hungary: The case of paprika”, by Matthieu Ansaloni (Steering Committee: Allaire G. (INRA); Bienabe E. (CIRAD); Cheyns E. (CIRAD); Forgacs C. (University of Budapest); Fouilleux E. (CNRS/CIRAD)), April 2006. In the following: IDARI report 1.

Bibliographic references are not reported in the present note, see the reports.

2 Some information for this part was found on the web.

3 Note that the term Paprika means both the spice and the plant from which it is made.
One third of the territory of the Hungary would be suitable for paprika production. The two principal areas of production are around the small cities of Szeged and Kalocsa, both located on the country’s Southern Great Plain and which for long time are competing for the title of Paprika capital of Hungary. These pepper-growing areas have the right combination of soil characteristics, temperature, rainfall, and sunshine required to cultivate these plants.

Pepper cultivation was established in Hungary during the Turkish occupation of the country in the sixteenth and seventeenth centuries. It was considered at the beginnings as a medicinal herb and an ornamental plant. It wasn’t until the late eighteenth century that paprika gained widespread popularity as a spice in Hungarian foods. Formerly found only in peasant dishes, it gradually entered the culinary repertoire of the gentry and the nobility—dispersing throughout all levels of society. Paprika became commonly used in Hungary by the end of the 18th century. The French chef Escoffier introduced the spice to western European cuisine. He brought the spice in 1879 from Szeged. Export of paprika began in the late 18th century. A Hungarian scientist Dr. Szent Gyorgyi won a Nobel Prize in 1937 concerning his work with paprika pepper pods and Vitamin C research.

Before the Industrial Revolution, farmers used to string all their ripe peppers by hand, hang them up in a protected place to dry, and then complete the drying process in large earthenware ovens. The dried peppers were first crushed underfoot, and then ground into a fine powder by hand, using a kulu, a huge mortar with a large pestle. Water mills later replaced the kulu for grinding paprika, and by the late 1800s, steam engines were being used for this task. Up until the mid-1800s it was difficult to control the pungency of paprika. The capsaicin that gives the paprika its spicy characteristic is located in tiny glands at the points where the pepper plant’s placenta is attached to the pod’s inner wall. When the pod’s seeds and veins were removed by hand before the dried peppers were ground into powder, varying amounts of capsaicin would be also removed, making it almost impossible to predict whether the resulting paprika would turn out to taste mild, medium, or hot. In 1859 the Palfy brothers of Szeged invented a machine for removing the veins and seeds, then grinding the dried pods into a quality-controlled powder. The Palfy’s technique continued to be used in Hungary for almost a century, until the introduction of more modern automatic machines that wash, dry, crush, sort, and grind the peppers in one continuous process. The Palfy’s invention made possible the large-scale commercial production of very mild, "Noble Sweet," paprika, which had a much bigger export market than the hotter-tasting varieties. Ferenc Horvath of Kalocsa developed the first variety of Hungarian pepper, for spice production, that was "sweet" throughout—meaning that it contained very little capsaicin. This kind of pepper was favoured by growers in the regions of Kalocsa and Szeged. It can be used alone or in combination with other, hotter peppers to produce the many varieties of paprika marketed. Under pressure from the paprika producers and paprika merchants of the Kalocsa region, the Ministry of agriculture founded the Kalocsa paprika research and chemical analysis station on 1917. The research station of Szeged was founded in 1927. The objectives concerned plant selection, provision of the producers with improved sowing-seeds and the working out new production methods. These 2 stations were merged together in 1971. In 2000, an independent, non profit public company was established.

In summary the industrial rationalisation of the paprika industry became since the mid XIXth century.
Hungary has filed two European PDO applications, but the decision is not made: “Kalocsa ground paprika” and “Szeged ground paprika” (or Szeged paprika). The product description is the same in both cases: Kalocsa or Szeged paprika “is produced by grinding the pods (matured on the stem, post-ripened and dried) of state-recognised varieties of paprika pepper (Capsicum annuum L. var. Longum DC.) or cherry-paprika (Capsicum annuum L. var. Longum Grossum), produced by traditional techniques in the Kalocsa region – an area in Hungary with favourable agricultural conditions – using sowing seeds from sealed lots. The special taste, aroma and colour of the product that are exclusive characteristics of Kalocsa ground paprika originate from the mild and hot varieties of paprika peppers produced from sowing seeds of the plant originating exclusively from this region (such pepper pods being the exclusive raw material for the ground product), and from the technological and quality management system applied in processing.” The two products according to their description differ only by the origin of the raw material including seeds.

The two regions asking for an IG have been first defined by the state in 1934, which limited the production in these regions. But as a consequence of the changes that have taken place since then in the ownership structure in agriculture and the market of the ground product, the initial districts boundaries have changed and enlarged. In both cases, raw paprika peppers produced in the vicinity of the core district may be purchased as raw material for the Szeged or Kalocsa ground paprika spice:

1.2 Grading and qualification of the product

The Directive No. 2.8720 on “Ground Paprika Spice” of the Codex Alimentarius Hungaricus (Hungarian Food Code) establish a grading system of paprika powder, according to chemical and physical parameters and based on the industrial and marketing traditions of the main regions of production. The four different quality categories are:

1. Különleges (special): This is the best quality product, made of selected and best quality row material;
2. Csemege (delicates): The second best quality, with not so strong taste and softer smell;
3. Édesnemes (sweet gentle): The third best and most currently used type of paprika powder, with normal taste, smell and colour, and with the price adequate for everyday usage.
4. Rózsa (rose): The worst quality, and the cheapest product. This type of powder is generally used as row material for other products (creams, pastas, etc.).

The physical parameters which define groups of quality are essentially the colour and the level of impurity. It corresponds with mode of processing. A second distinction is made according to the content in capsaicin which gives the hotness of the spice. If the capsaicin-content of the product is less than 100 mg/kg than the taste of the product is said free of acrimony; while if the capsaicin-content of the product is more than 200 mg/kg, it is hot. This leads to 8 types of Hungarian Paprikas which constitute a vertical quality differentiation. The EU application files for Kalocsa and Szeged paprika cover all the grades.

According to the relevant legislation (Codex Alimentarius Hungaricus) the followings have to be labelled on the product packages:

1. Denomination:
2. Spicy paprika powder
3. Name of the quality classification
4. If the product is sweet, softly hot, or hot.
5. In case of 100% import products, the origin country has to be labelled;
6. In case of partly import, partly Hungarian products the rate of the import quantity;
7. In case of Hungarian paprika powder the indication of the territory the raw material is originated from has to be labelled;
8. In case of completely sweet paprika products, “free of acrimony” has to be labelled.

According to IDARI report 2, prices are generally in strong connection with the quality (grades) classification. Origin acquires value in the case of the paprika from Szeged or from Kalocsa. The original packaged “Kalocsa paprika” with the old design of the company is the “best product” according to the consumer’s point of view.

Before the recent “scandal of paprika” the role of importation of the raw material or powder by national processors was not of signification for consumers buying paprika in supermarket, but since the scandal turned out, this characteristic of the products is more important for the consumers and have to be labelled.

The critical part of the production is the method of drying (the freshly harvested paprika is willing to rotten, and to mildew, so it has to be stored among adequate circumstances: airy place, not too dry, but not too wet, enough distance between the pods, etc.). In case of exterior drying (that could be a component of code of practice as in the case of Piment d’Espellette) which requires two weeks of exterior drying), irregular weather conditions can be a threat. The code of cultivation practices have also to fit with sanitary constraints (as Sclerotinia infection).

The method of milling varies, according to the equipment used. To obtain strong red colour the powder have to be warmed up (to activate the oil content of the powder), it is why stones were (and are) used for grinding.

**Quality core aspects**

*Grades (see upper)*

The classification of Paprika by the Hungarian code define grades (vertical differentiation) which are legitimated by the market (prices vary according to grades).

*Sanitary traceability*

Sanitary conditions can be controlled at the level of import and by processing norms. The EU application files for the two Hungarian Paprika built up by the industrial actors of both regions establish a quality management system (ISO 9000 type) (the industries are ISO and HACCP certified). Home operation of drying can be the cause of sanitary problems. This is a delicate issue in the elaboration of a code of practice for a PDO product.

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4 Sanitary problems were found due to the use of imported paprika sold by the Kalocsa industry.
5 For cooking paprika have to be warm up in hot oil but not to burn.
Origin

Origin is relevant in combination with grades. As we will see in the next section, origin account for consumers for the upper grades, both on the official market and on the informal market.

1.3 Market of Hungarian paprika

Market structures and structures of production

There are two Hungarian markets with many informal channels beside the formal ones, and an export market.

On one hand, the “official” products (labeled according to the classification described upper) are made by the registered producers, like the two most important Kalocsa Paprika Rt. and Szegedi Paprika Rt.. Quality and prices are quite stable. These products have their own package, which are well known among the Hungarians consumers. These products (powder, cream, paste) can be found in almost all the supermarkets, and shops all over the country. On the other hand there is the market of the home-made paprika powder, where both the price and the quality are diverse (but is depending of the origin), which is mainly based on personal relationship while these products sometimes can be found on the open market places.

The four official grades are recognized standards at least in formal networks. In the domestic networks and on open markets intervenes domestic trust. In both case, the origin is an important feature for paprika used in cooking.

The State paprika production monopoly ended in 1990. In recent years the upheaval in market rules, and transformation of the ownership regime, inevitably were affecting the productive structures. They are characterized today by a concentration of the processing companies and the dichotomy of agricultural production structures. Today in the country, there are 20 processing companies. A restrictive regulation in force from 1994 to 1999, subjecting paprika trade (finished or semi-finished) to the payment of a lump sum tax partly explains this concentration and the difficulty of the emergence of small enterprises in this industry.

Kalocsa Paprika rt currently holds a 40% share of the market and is the leader in Hungary. The Kalocsa Region Agroindustrial Association (KAGE), the predecessor of Kalocsa Paprika rt, covered – among other things – paprika production, processing and marketing. Privatization of KAGE began in 1990 and was completed in 1997, when the State offered up for sale the remaining half of its shares (Romsics, 2001, p. 29)\(^7\). At the same time, the company halted its production of milk and phytosanitary products, which had been adversely affected by upheaval on domestic and international markets. Paprika production became its sole activity and, in 1999, KAGE was renamed Kalocsa Paprika rt, i.e. Kalocsa Paprika Ltd.

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\(^6\) Information on this part comes mainly from IDARI report 1.

\(^7\) This point is not clear. “According to the regulation (2004 new subsidy scheme), the Kalocsa Fűszerpaprika Rt. is not eligible to receive state subsidies for development (as many big companies are). This is based on the fact that Kalocsa is still a 54% state-owned company. Above that, Kalocsa employs more than 500 employees which disqualify them from the subsidised group.” (IDARI report 2).
Two thirds of the production is exported: it thus supplies 2 to 3% of world paprika production and ensures 3 to 4% of world exports. It has secured long-term contracts with European companies such as Nestlé, Auchan, Tesco or Cora. Most of its sales are wholesale, in 25 or 50 kg bags, and are intended for factories making crisps, ketchup or delicatessen products. The factory offers diversified production, depending on origin (Hungary or the Kalocsa geographical area) and the technologies used, particularly during processing. Supplies are ensured by 2000 or 3000 producers depending on the years. The Kalocsai Fűszerpaprika Rt.’s turnover is around 2.5 billion Forints each year. The reputation of the company on the national market was affected by a recent “scandal” (2005) (the result of this scandal was 15% cut in inland paprika prices).

In the town of Sükösd located thirty kilometres south of Kalocsa, Hási Piros Paprika kft (i.e. Plc) was founded in 1990, after the political change. It produces different dehydrated and ground condiments (parsley, dill, onions, etc.), sometimes mixed. It is the second largest paprika producer in Hungary and holds a 30% share of the market. Half of its production is exported to other European countries, primarily, Germany, France, Slovakia and Romania. The paprika is marketed under the “Hási arany” trademark, literally “golden house”. The company currently employs 120 people, has four establishments, two mills and two dryers, and imports some of its raw material.

The distinction between “official” or “legal” market and “free” market is inherited from the socialist period productive structure. It is transitional. The part of auto-consumption and of the domestic and communitarian networks are likely to go down, while an artesian production and small scale processing enterprise could join the legal market framework. An example is described in IDRAI report 1. In Miske, about ten kilometres to the southeast of Kalocsa, a small company clearly contrasts with the two leaders of the industry. Its responsible cultivates 20 hectares of paprika, which is then processed and marketed, with the help of eight full-time employees. For picking and processing (notably calyx removal), up to 45 seasonal workers are taken on, mostly women. Most of the production is sold to German, French and American tourists, sometimes directly or in tourist locations (hotels, restaurants, market). Ten tonnes of paprika are marketed each year. Small-scale paprika processing follows traditional rules: manual harvesting, the calyx is also removed by hand; the fruits are then sorted (to eliminate diseased fruits). After gaining a baccalaureate in machinery, it responsible left to work in Czechoslovakia on a State farm. On his return, he was in charge of machinery at KAGE for eight years, on an intermediate level. "I was already selling a lot of paprika; I even went as far as Budapest to do so, so I was able to put aside a lot of money. When the political change came, I already had the market, the customers; I just needed to obtain the right to sell". The business was built up over the years; a lot of land was redistributed and sold. That is how I did it [to construct my business] but I didn't benefit from the Transition laws, I didn't want to" (the Transition Laws often led to the privatization of

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8 According to IDARI report 2, the company leader said it has growing markets in Europe and that they export (in Europe?) ca. 30% of their products.
9 It could be interesting to note that it was a « credence » or “quality” crisis (Allaire, 2005) developing in opinion and not a classic economic crisis. The scandal is related to the introduction of imported paprika in Kalocsa labelled product causing sanitary problems. The terms “case” and “scandal” were used deliberately in interviews: many people in the paprika business thinks about what had happened with this branch as a case and many consumers think about it as a scandal. The Paprika Product Council’s representative thinks that there are interest groups behind the case. The company affected most is the biggest paprika supplier in Hungary, the Kalocsai Fűszerpaprika Rt. There are still ongoing investigations.
10 That could be considered as a tolerance of direct sale.
State establishments to the benefit of the managers in place, see for example, Mink & Szurek, 1998).

Lastly, although the end of the State paprika production monopoly led to the creation of processing companies, they remain limited in number and, in the Kalocsa region, the production area is clearly dominated by two industrial enterprises, Kalocsai Paprika rt and Hásí Piros Paprika kft. On the other hand, the Transition Laws led to a break-up in the agrarian structure, notably by returning land to the original owners. We will come back on this last point.

The paprika industry in Hungary in recent years is losing in productivity and losing market at the same time. Many observers claim that the branch joined the bottom in 2003 when the yield was below 7 tons of fresh paprika per hectare. In this year the national paprika powder production was out of 5500 tonnes. In 2004, the paprika yield was 9 tonnes per hectare, and the national production of processed products came to 6500 tonnes. For 2005 the estimation found in the cited report was 7000 tonnes11. On another side Europeanization increase international competition. After Hungary’s EU accession, the former tariff of 42.5% on importation was abolished. This opened Hungary’s market leaving opportunity to foreign paprika traders to sell their products on the Hungarian market at competitive prices.

In conclusion, we observe a (soft) crisis of the industry linked with the increase the of competition, the productivity gap with competitors. Scaling issues are at stake with the need to protect and

**Hungarian consumers and sellers perception of quality**

IDARI researchers separate the consumers into 2 parts: the first group cares much about the quality of paprika. Generally they prefer the home made paprika quality, and use to buy the product directly from the producers or through the informal network of friends who have the right connection to the producers. The second group of consumers is using the paprika powder sold in the supermarkets. They also care about the quality, but just as much as in case of the other products. It means that for them the factory-processed paprika products with controlled quality is the good quality. Many consumers are aware of the different types of fabrication. According to this survey (report2), while the products can be separate by many characteristics, the question of home- or factory-made products is the most important. The first type of products is produced by separate growers, at home, with different types of equipment, without official quality norms. The second group of products is produced and packaged on a controlled way with legal standards, and is distributed by professionals. But this distinction is not relevant for the application to a public quality scheme. Producers willing enter in a quality scheme have to entry the formal markets, which can be of several types. Thus one issue is how are changing market and consumption structures.

According to the same survey, traders of supermarkets and small shops are all buying the products from official producers. Retailers on local markets are more willing to take the risk of selling home made paprika. They also sell “official” products. About quality the leaders of supermarkets think that quality controlled product can guarantee the best and the same

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11 The production was limited in 2005 by climatic conditions. When they are not favourable the season is shortened. In normal year 10% of the paprika fruits stay unripe at the end of the season, but in some years (as in 2005) this percentage exceeds 20%.
quality all the time, which are the most important characteristics of the products in a supermarket. The leaders of small shops think that home made paprika can be better than the official products, but they do not want to take the risk of selling those products. The retailers on the open market are all agreeing that home made paprika is the best product, with the “Kalocsi különleges” (it is the “best”, and the most expensive product of the Kalocsa Paprika Rt, produced mainly for representative purposes and export, and sometimes for domestic commerce, sold by specific traders).

**Production, productivity, quality and market stakes**

As we will see, Europeanization led to scaling up issue linked with the integration of the European market. In the new competition context, the yield of the field paprika production appears low (in comparison with Spanish producers, the yield of which being up to 20-30 tons of fresh pepper per hectares) and the price paid to primary producers high (in comparison with other former socialist countries). So the industry is confronted with a double challenge, quantitative and qualitative.

The Paprika Research Station makes propositions on the production side and particularly at the level of varieties selection. But the head of the Research Station states that while the researchers provide new varieties, the paprika producers are not willing to use them (this point needs investigation). The new varieties are resistant against paprika pests and provide producers with a bigger yield. Agronomic researchers claim that the existing certified varieties are able to double the production in order to improve the competitive position of the production basin.

Industrial and home made sectors are confronted differently with the quantitative and qualitative stakes. As we will see in considering social actors, adequate professional structures in the so called home made sector do not exist to get on production problems. In fact this “sector” is an artefact because it encompasses different types of producers: producers operating in cooperative structures but which sale for their own small amount, small part time producers having opted for the transition law option, mere gardeners and small scale enterprises.

On the side of the market stakes have to be seen in terms of quality differentiation. As we have seen the market is structured by grades, at least the national market. In fact origin account for superior grades (and in these cases it is labelled on the product with the name of the company).

One scheme using European tools to conserve this quality structure could be the following:

- A PGI scheme for Hungarian paprika with the control of sanitary parameters which could cover all main “official” producers by delimitation of a large geographical area of production (with the subtle issue of importation of raw material);
- A PDO scheme for Kalocsa (or Szeged) paprika based on the superior grade type of production which mainly (it seems) corresponds to similar practices in large or small scale companies as it is a small scale activity in large companies.

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12 In the former Yugoslavian states, Slovakia and also in Spain, processors buy fresh paprika at 20-23 eurocents per kilo. In Hungary, the buy-up price reaches 30 eurocents and is higher than anywhere else. Cf. IDARI Report 2.
We will address in following sections the capacity of present actors to build such schemes or to follow others strategies. This type of evolution will certainly lead to a differentiation of the primary producers into mere producers contracting with the processing industry and small scale (but “official” and certified) producers and farmhouse processors.

**The Hungarian legal framework and the issue of Europeanization**

Europeanization has two aspects, it concerns:
- the legal system: Issue of the capacity of actors of the relevant industries to manage the type of collective property right relevant for GI in the European framework;
- the market: Issue of normalisation and position of the origin characteristic.

Both issues regarding Europeanization raise governance issues linked with systems of actors and stakeholders.

**Legal system change**

Before joining the EU, Hungary was member of Lisbon Agreement (1958, 22 countries) and during the transition period have adapted its regulation in line with the EU regulation. In 1996, the Food Act was promulgated in this perspective. As part of it, Law XI of 1997 concerns trademarks and GIs. As the European regulation offered protection on the Community market for GIs from non–EU countries with comparable systems of protection, Hungary adopted a protection system based on the European canons. While the Hungarian text was based on the European regulation, the Law XI of 1997 introduces a provision enabling a single legal body to take advantage of GI protection: "Any natural or legal person, or a group without legal personality, may apply for the protection of a geographical indication when the person (or the group) produces, processes or prepares, in the defined geographical area, a product for the designation of which the geographical indication is used" (Article 107, paragraph 2). Under the Law mentioned, the Ministry of Agricultural and Rural Development and the Hungarian Patents Office (HPO) defined, through Decree No. 87/1998, the procedure for national registration. In 2001, the first nine products were registered. They were four brandies (plum brandy from Szatmár and Békés, apple brandy from Szabolcs, and apricot brandy from Kecskeméti) and five agricultural products and foodstuffs (paprikas from Kalocsa and Szeged, winter salamis from Szeged and Budapest, onion from Makó). The applications for Paprika were made by the leader of the two area.

In 2004, when Hungary joined the EU, the domestic legal system for registering GI was harmonized with the European system (UE regulation 2081/92). A comparison of the two systems revealed a discrepancy regarding the issue of the group from which the GI initiative emanates. While the Hungarian text opened up the possibility for a single legal body to submit an application, the European text specifies that the application must be submitted by a requesting group and that GI establish a collective property right (the use is opened to all producers of the area complying with the published code of practice). Generally, as it is in France the procedure of the national examination of the application

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13 The international aspects of the EU regulation were adapted after the WTO panel decision, see reg UE 510/06.
Europeanization of the market

Generally speaking, the collapse of COMECON resulted in the loss of the traditional export market for Hungarian paprika. The collapse of COMECON generated an important drop in national paprika production. At the same time, the development of the European common market and the lowering of import barriers increased competition on international and domestic markets. The actors in the Kalocsa production area had to cope with this double movement.

The issue of the transformation of the former socialist system (the case of the Kalocsa paprika industry)

From immediately after the war to the break-up of the eastern bloc in 1989 – two State-owned agro-industrial complexes held a monopoly, for both the production and the trade of paprika in Hungary. In the following period this complexes were disintegrated in the ownership and the organisation of the activities. Nowadays, in the Kalocsa area, distinct actors are: the agriculture cooperatives (which remain the principal fresh paprika producers), independent producers and small processors, large or medium processing firms trading the spice, the largest (the Kalocsa Paprika rt) being constituted from a former part of the Kalocsa Region Agroindustrial Association (KAGE).

History of the industry and change in regime of government

The Kalocsa Region Agro-industrial Association (KAGE), the predecessor of Kalocsai Paprika rt, covered – among other things – paprika production, processing and marketing. That structure originated from two Royal Decrees (1934, 1936), which defined the rules for producing and marketing the spice. Throughout the decades of collectivization, an industrialization process took place. But the increasing autonomy left to producers in the cooperatives gave rise to a vast black market for paprika spice.

The KAGE agro-industrial complex

In the 1930s, the paprika production was confined to the geographical zones of Szeged and Kalocsa and production rules were constrained by national regulation (1934). That regulation was issued in a context of market disorganization, stimulated by increasing demand from abroad, but also in reaction to the multiplication of acts of adulteration. The second (1936), to stabilize supply and demand, established the “cooperative” of paprika producers, processors and traders in the Kalocsa region. It had an inspection unit that ensured that production and marketing rules were respected, notably by issuing licences. The second Decree established that the Cooperative would market paprika under a trademark, "Kalocsa Hungarian Paprika". In many ways, that organization resembled the designation associations that emerged in France, particularly at the beginning of the last century.

14 The numbers found in the reports used for the present note are not clear. In term of yield it is said that the bottom was 2003. An other indicator shows a 50% drop in 2000: while the quantity produced of fresh paprika amounted to 79900 tons in 1986, it only reached 6000 tons in 2001, after falling to 40000 tons in 2000
15 It was not an agricultural cooperative, but an association playing the role of certification body.
The cooperative was nationalized in 1946, when agriculture was collectivized, and incorporated into the Kalocsa State agro-industrial complex. It was in 1977, after various legal changes, that the latter was renamed KAGE. The Association then counted seven cooperatives among its members. KAGE was producing paprika, phytosanitary products and milk. Whilst the "Kalocsa Hungarian Paprika" designation was nationally protected by the Royal Decree of 1936, it acquired international legal protection in 1969, as Hungary was one of the States signing the Lisbon Agreement. As indicated by the Managing Director of Kalocsa Paprika rt, that State initiative was intended at the time to provide legal protection for a traditional export product, in an international context marked by an absence of trading rules.

In the 1950s, traditional production methods persisted. For cultivation aspects, preference was given to organic fertilizers (KAGE also bred pigs), with manual weeding, planting and harvesting. A post-ripening period followed, when the fruits were strung together by their calyx, hung up and exposed to sunlight. The spice was ground with millstones. For some people, that period was "when true Kalocsa paprika was produced" (retired KAGE workers). However, in the 1960s a production industrialization process took place, based on the separation of design and production functions: the State agronomists planned the production targeted agricultural modernization in close liaison with the processing industry. Plot areas increased, sometimes reaching 100 hectares, organic fertilizers were replaced by chemical fertilizers and harvesting was mechanized. KAGE investments, wages and exports were decided centrally... and "paprika became an industrial and no longer a small-scale crop. This evolution was based on mechanized farming over large areas and to a race for yields (...), and led to the rejection of agricultural reasoning and of the physiological requirements of the plant" (paprika researcher). KAGE had the largest mill in the world, capable of producing from 7000 to 8000 tonnes of paprika per year. Today, critics appear on the quality of the product after that transformation: "they no longer cared about quality, only quantity mattered. Harvesting was carried out by machines, unripe fruits were harvested, along with weeds. The paprika could barely be kept until Christmas" (retired KAGE workers).

After 1956, under Kadarism, the political power granted the right to peasants, initially as a transitional measure, to practise an individual family activity, alongside the cooperative system. Each member received an "allocation plot". These micro-farms were incorporated into the cooperatives functioning and a division of labour emerged: the family work ensured labour-intensive production (market gardening, animal breeding, and fruit production), the cooperative ensured production that was capital intensive. Concerning the fresh paprika production, the allocation plots were farmed at the same time by machines belonging to the production cooperative, which provided its members with seeds, fertilizers and phytosanitary products. At the end of the season, the members were obliged to deliver their entire production, but black market developed: "inside the TSZ, everybody had a bit of land, around one are. Usually [as trade was forbidden] we had to deliver our production to the cooperative, but the bosses couldn't check our production exactly, because yields were highly variable. So we were able to set some aside and process it (András/producer).

While the paprika GI was State property, the decollectivization process - and the break-up of structures it gave rise to – today raise in different terms the issue of distributing this collective good between the different players involved in the paprika production.
Dualism of agricultural production structures

The current agrarian structure in Hungary is an outcome of the Transition Laws. In the Kalocsa region, the agricultural land is distributed within 1249 farms, including 16 collective farms, for 7155 hectares of cultivated land (RGA – AMÖ, 2001, p. 15).

The collective farms visited (IDARI report 2) revealed similar structural characteristics:
- The "Blue Danube Agricultural Cooperative" farms a total UAA\(^{16}\) of 1200 hectares and employs 130 people,
- The Fájsz Cooperative farms 1250 hectares and employs 135 people. This structure results from the dismantling of the previous structure,
- Valter Agrogep kft (Plc), located in Dusnök, farms 1800 hectares and employs more than 150 people.

These structures were formerly part of KAGE. Today, all of them devote a tenth of their UAA to paprika growing. Fresh paprika is sold to Kalocsa Paprika rt. While the complexe was disintegrated, the economic integration of the paprika chain resumes in the hand of the leader, which have the control on the markets of the spice. This integration is based on contractual economy, but the actors do not have a large experience on contract setting, and contract regulation remains merely informal and the competition in contracting does not exist. It is possible that the recognition of an IG for Paprika under the European regulation opens a possibility of implantation of European Firm willing to contracts with fresh paprika producers.

Among the family farmers met during the survey (IDARI report 2), two processes of differentiation emerge. For some, mostly older farmers and with small acreage (less than 2 ha), agriculture is seen as a refuge from unemployment, we can call them subsistence farmers. For the others, entrepreneurs, the creation of a farm goes with a professional project. A type of farming system corresponds to each category. Nevertheless, behind their differences, these farmers have the common practice of marketing some or all of their production via parallel networks. Another type of subsistence farming is more oriented to auto-consumption (poultry) and beside the production they deliver to Kalocsai paprika rt. they process by their own small amount of paprika.

Parallel market and marketing network Paprika marketed via unregulated channels amounts to one third of domestic consumption (Agrafood East Europe, Sept. 2004, p. 17). A limited regulation (the Law of 1994/XIX), in force in the 1990s, explains the persistence of this phenomenon. Paprika powder production has been subject since 2003 to the application of European HACCP standards, like any food processing activity, and to standards defined by the Codex Alimentarius, for both the domestic and international markets. The latter primarily set down that raw materials and processed materials must be stored in separate places, and analysed every three months. In addition, the powder obtained must be packaged in bags respecting specific specifications (food safety), preserving the flavour of the product, then stored in a dry, cool place away from 21 daylight (Codex Alimentarius, No. 2.870, 1997, 3.2.), meaning it is necessary to possess adequate equipment and premises. The second reason explaining the persistence of informal channels is the high level of taxation to which agrifood operators are subjected: consequently, this trait is not confined to paprika production alone, but is general. The final reason lies in the way producers and processors are integrated: it is

\(^{16}\) Useful Agricultural Area (UAA)
also in reaction to the contract system that the family farmers met during the survey market directly their production.

**Conclusions**

Paprika is a mature GI system seeking for new life, facing scaling up issue (increase of local competition and adaptation to European market and regulation).

For the locals actors main issues seems to deal with the professionalisation of new entrepreneurs and related governance issue and with the contract design and regulation in the spice production chain.