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NATURAL SYSTEM–HUMAN SYSTEM
INTERFUNCTIONALITY SPECIFIC
TO THE RURAL COMMUNITIES.
CASE STUDY: TRADITIONAL PRODUCTS

ABSTRACT

The present study intends to identify the socio-ecological logics of the technological process generated by the particular type of the functionable relations between farmers and the natural space, with reference to the traditional farm products.

The traditional product is closely connected to the physical territory, in which the local specific culture is relevant, which in its turn comes from the local social system. At another level, the production of these traditional goods is obtained in the context of private initiatives, in the strategies of some farmers who in this way get connected to the structural dynamics. The traditional product is considered as a “cultural trademark” for the local populations, being able to have “a patrimonial status” for the rural communities. The paper is based on in-depth interviews applied to farmers in the Romanian rural area, in the period 2009–2010; it appeals to the diagnosis analysis of traditional products as well as to the quantitative and qualitative analysis of the rural inter-functionality processes and phenomena, assisted by the ATLAS Ti software.

Key words: traditional product, natural system, human system, rural area.

JEL Classification: Q12, Q20.

1. INTRODUCTION

In the last decades, rural development has become one of the main objectives of the policies elaborated at European level. The rural development concept was introduced in the Common Agricultural Policy in mid 1980s, the European Union policy being increasingly oriented towards the support of economic and social activities diversification in the countryside, having in view to improve the quality of life and rural resources, mainly at local level. According to recent approaches, the central role in the rural development process is played by the elements specific to its dimensions (endogenous, integrated and sustainable): the community participation to defining the objectives, the local resources importance and the respect for the natural and social environment¹. This led to the change of agriculture

¹ Marescotti A., *Typical products and rural development: Who benefits from PDO/PGI recognition?*, 83rd EAAE Seminar Food Quality Products in the Advent of the 21st Century: Production, Demand and Public Policy, 2003, Greece.

role in this process – the EU rural development policies targeting the potentiation of the multifunctional character of the agricultural activities and the integration of all economic and social activities at local level. A very important element in order to reach this objective is represented by the support to the traditional products (typical for an area/zone).

Traditional products are strictly linked to the origin area, their characteristics deriving from the soil and weather particularities, as well as from the technical and organizational particularities of their areas of origin. These are based on certain specific local resources, both material and immaterial resources, which cannot be reproduced outside the local particular context, generated by the constraints of physical and climate nature, as well as by the social and cultural capital (Ray C., 2000, Brunori G., Rossi A., 2000). In this way, the need to consider the role of the local community, of culture, identity and contextual knowledge is highlighted. The traditional product can be considered an output of a social construction carried out by different actors, along time, on a certain territory, based on different local resources. That is why, the support provided to traditional products is often considered as a useful instrument in the maintenance/preservation of culture and local traditions and in rural areas development.

2. STATE OF KNOWLEDGE

There is a rich literature that addresses the issue of traditional products, which derives from the numerous scientific disciplines, focusing on different aspects and dimensions, from the physical, social, and cultural to the economic ones.

Many studies approach the traditional products from the perspective of the indissoluble relations between these and the territorial, social and cultural particularities of the areas where they are obtained. Arfini and Mora (1998) consider that the traditional products are connected to the public goods created at local level, as well as to the history, customs and culture of the local community, and the support provided to these products is a modality to preserve the local traditions and culture, mainly in the case of less-favoured areas that do not benefit from viable alternatives.

Belletti, Marescotti (2002) and Boisseaux (2002) refer to an archetypal pattern of the traditional products, as a result of a collective and territorial tradition – the traditional product is strictly connected to a physical territory, which is revealed by local specific knowledge, also derived from a local social system. Marescotti (2003) considers that the processes of production and sale of traditional products are often based on non-transferable local goods (both of material nature – specific crop varieties or animal breeds and immaterial – local culture and knowledge).

A similar approach, based on the connections between traditional products and local specific resources, is also found in the studies made by Brunori, Rossi

and Ray (2000). This brings forth the idea launched by Dedeire (1995), Berard and Marcheray (1995) on the need to consider the “patrimonial good” nature of the traditional products and the local community role.

Other studies focus on the economic aspects referring to the traditional products, with reference to their future and the implications upon the local communities and not only, from the modernity perspective.

Many authors (Van der Ploeg, Van Dijk – 1995, Iacoponi – 1997, Brunori – 1999, Basile, Cecchi – 2001) underlined the way in which modernity evolution determined the rural area and agriculture, in particular, to follow development paths of industrial type, thus becoming dependent on external actors and regulation bodies and losing their decision and control power. Thus, production in the rural areas becomes subject to a homologation/modernization process generated by the immixture of certain behavioural patterns specific to the industrial sector and urban areas, both at production and consumption level. This process generates a crisis at the level of the traditional agricultural system, to marginalization increase and agriculture abandoning in the marginal rural areas, with obvious and deep social effects.

3. MATERIAL AND METHOD

For the study of the “natural system–human system” inter-functionality specific to rural communities (case study: traditional products), we used the diagnosis analysis of traditional products as well as the quantitative and qualitative analysis of the rural inter-functionality processes and phenomena, assisted by the ATLAS Ti software. The instruments used in the present paper were the following:

- In-depth interviews applied to the agricultural producers from the Romanian rural area, in the period 2009–2010 (traditional products: ewe cheese, goat cheese, mixed cheese, potatoes, bee products, plum brandy);
- ATLAS Ti software – a qualitative analysis software, in which in-depth interviews selected for the study were introduced, which were afterwards analyzed in accordance to the issues targeted in the present paper.

4. RESULTS AND DISCUSSIONS

The traditional product is strictly connected to the physical territory, in which the local specific culture is relevant, which in its turn comes from the local social system. At another level, these goods are produced in the context of private initiatives, in the strategies of certain farmers who in this way get connected to the structural dynamics. The traditional product is considered as a “cultural brand” for the local populations, capable to have a “patrimonial status” for the rural communities.

The dimensions taken into consideration for the analysis of the traditional agricultural products were: product traditionality, motivation – social type of activity, product valorization, technological traditionality, technological process, commercial traditionality, socio-economic profile of the household and the producer's socio-demographic profile – each of these having, in their turn, one or more sub-dimensions.

For the purpose of this paper, we selected two of the most important dimensions, namely traditionality (with reference to the zonal traditionality) and the technological process.

4.1. Traditionality of agricultural products

Traditionality can be described as an aggregate consisting of a zonal traditionality (as specific space of activity) and a socio-economic traditionality. The zonal traditionality is determined by the particularities of the natural, social, economic and cultural factors, specific to the investigated area, being materialized into the production of certain agricultural goods.

The key concepts referring to the zonal traditionality, identified by the in-depth interviews, were the following: “it was a tradition”, “here in the village”, “from another village”, “Hațeg”, “in the neighbouring villages”.

- **“It was a tradition”**: *“Here, in Clopotiva, in Ostrov, it was a tradition to grow potatoes and now people almost do not grow them any more.”* – Tomescu Adam – Clopotiva village, Râu de Mori commune – potato grower.

- **“Here in the village”**: *“I told you that there were 2000 sheep and over 500 bovines here in the village before collectivization.”* – Iovăneasă Pavel – Valea Dâljii, Râu de Mori commune – sheep raiser; *“Here, a long time ago, all houses had sheep. There were 5–6 sheep on almost each house.”* – Brăilă Cornelia, Râu de Mori village, commune Râu de Mori – sheep raisers and cheese producers; *“VF. All households have a cow, sheep? CI – Yes, they still have. If there is an old man he cannot take care of animals any more. People have cows, sheep, and horses.”* – Ciolea Ioana – Federi village, Pui commune – cow raiser + wild berries; *“A lot of pollen is collected here. There are a lot of willows and nut trees. This guy who gave me the collector has been collecting it for quite a long time. There is another guy who does this. Since 1993–1994, my brother has had a workshop and started making beehives. Now we are doing this.”* – Avramescu Miuțu, Vălioara village, Răchitova commune – beekeeper; *“We are 6 people who plant potatoes, here in the village, on large areas. Each with his own business. We do not have the plots with potatoes in the same place to work together. So each minds his own business.”* – Suci Septimiu, Ciula Mică village, Răchitova commune, potato grower; *“Given the fact that in our area, these local plum trees, the Varani plum, as we call it, is not grown under an intensive system. They are plum trees grown from copses. So they are not planted... VF. Is it a local variety? SS. Yes, it is local... It is those red ones (the potatoes) that are more in demand, at least in this zone of Hunedoara.”*

We grow both. It is a known fact that we do not use chemicals in this area” – Sandu Septimiu, village Răchitova, commune Răchitova – potatoe grower, plum brandy; “There are still only 20 families in the village who grow potatoes and they would like to sell them, but they do not have transport means to get them to the market.” – Olărescu Emil – Ciula Mică village, Răchitova commune – potatoe grower.

- **“From another village”:** *“VF. The friend was from here, from this village? AM. No, from another village – Peștenița, from the commune Densuș. I started to like it myself, because I used to accompany him. I started to like this job myself. I started together with him. He multiplied them, they died, he multiplied them again and they died again. He was a beginner and did not know much. Step by step, he started multiply them. Now, we have 53 families... Balta Unirii. [From General Berthelot?] Yes. As you enter the village you can see the beehives. He’s got many” – Avramescu Miuțu, Vălioara village, Răchitova commune – beekeeper.*

- **“Hațeg”:** *“I tried to buy the nicest animals from the area, from Hațeg or Petroșani area. You can find this type of sheep here... We said that we cannot let shepherding disappear from Țara Hațegului... We said, it’s a pity, the Hațeg area was well-known for this activity, and it still is.” – Iovăneasă Pavel – Valea Dâljii, Râu de Mori commune – sheep raiser; “From what I know, it is only us who do this in the Hațeg area, as we are almost the only goats raisers from Țara Hațegului...” – Dudău Dinu Florentin, Valea Dâljii village, Râu de Mori commune – goat raiser; “There is a very good beekeeper here, he is from Hațeg, Mister Iezan. He got a diploma for 50 years of bee-keeping. We spoke with him and this year we installed some propolis collectors ourselves” – Avramescu Miuțu, Vălioara village, Răchitova commune – beekeeper.*

- **“In the neighbouring villages”:** *“There are in Răchitova commune, in the component villages: Ciula Mică, Vălioara, Ciula Mare, Boița. As a cooperative farm existed before ’89, the orchards from there got deteriorated, they were almost dismantled. Now, people started planting, but they have not obtained the production our people from Răchitova obtain... In the neighbouring villages, I know people, I have friends who are planting potatoes on 2–3 ha” – Sandu Septimiu, Răchitova village, Răchitova commune – potatoes grower, plum brandy.*

The analysis of the in-depth interviews applied to the producers of traditional products reveals the existence of the following aspects with regard to the zonal traditionality:

- The strongest zonal traditionality is perceived in the case of livestock production activities (mainly in the case of sheep raisers), argumented by the high number of identified key concepts; we can also find an obvious zonal traditionality in the case of bee-keeping activities, yet on a smaller area, being specific to a low number of neighbouring communities;

- There is an obvious process of propagation of this activity at the level of close/neighbouring communities;

- It is strongly influenced by the specific “actional system”, which is supported by the high incidence, during the interviews, of the elements referring to the social adoption/reproduction of the activities of the people in the community they belong to.

4.2. The specific technological process

The stages of the technological process, the technological recipes are different, depending on the cultural particularities of the rural communities; at the level of each component village there are technological specificities that give the specific traditionality note. We shall next present the technological process specific to some traditional products in the investigated rural area (4 products, two of animal origin and two of vegetal origin).

1. “Goat cheese” producer Dudău Dinu, Valea Dâljii village, Rău de Mori commune:

– **animal care, treatments, feeding, ecological sustainability:** *In winter we practice stabulation, since December 20, depending on when cold weather and snow come. If the snow doesn't come we get them out, because the goat eats thorn, dill, as with dill the leaves won't fall in winter, they stay green. If the snow comes, we have the sheepstable here, we keep them on stabulation, with hay, maize, potatoes, those small ones that remain from the autumn harvest. [How much hay do you buy?]. We buy grass, as we say. That is we mow it, we dry it and use it. It means I pay fictitious amounts, to those who do not want to take care of their hayfield and I take the grass. [Do you apply organic fertilizers on the hayfields?] Yes, we do, but not chemical fertilizers. We have contract with a company. They cleaned an area of 7 ha for us. We paid them, we have invoice, receipt. They keep the seed potatoes only for the kidding goats, you know, those that give milk... [Is the maize you feed the goats from your own harvest?]. Also from own harvest. We have 45 ares with maize. We buy already treated seed as it is suitable for the mountain area. We wash the animals, in spring and in autumn... It means the skin treatment by completely sinking the animals in the water. We have a big tub where we put 500 liters of water and half liter of solution used to control scab, lice, other skin diseases in goats and sheep.*

[Don't you always ask for vet's advice? Do you know what to do?]. Yes, we know. We ask for advice only for the most serious cases. I make the injections myself, this agalxin is made right under the skin. Washing is made in the tub, these are not complicated things...

– **yields:** *About 2 liters of milk per goat head per day on the average. Some goats yield more, others less, I told you an average, and they compensate each other. Now we are milking about 30–35 goats...;*

– **utilized labour force – traditionality:** *[Who is milking?] My wife and I, I and my dad, it depends on how we are at home... averagely around two people a day... in the morning at 7 and in the evening at 7;*

– **storage, hygiene maintenance:** *We have aluminum cans, we have the box, the mould in which we make the cheese, from inox stainless steel... After the milk coagulates we put it in the inox mould, I told you that we are making a sort of hard cheese, “telemea” as we call it, not traditional curd. After the whey is gone from it, we put it in boxes, special ones, and then it goes to the salt solution;*

– **product recipe, traditionality degree:** *my mother gets the milk coagulated, she makes the cheese herself, by a recipe of ours. We are making a kind of hard cheese, not plain cheese, it is hard cheese, because it is a small difference. [Where do you know this recipe from?]. It is from the family, from our forefathers, from grandmother, from grand father... As far as I know, in Hațeg area, it is only us who do this, because we are from Țara Hațegului, almost the only goats raisers...*

2. “Ewe cheese” producer Iovăneasa Pavel, Valea Dâljii village, Râu de Mori commune:

– **animal care, feeding, ecological sustainability:** *Lambing starts on January 14. Not all lambings start on the same day, there are still small problems. Anyhow, lambing takes place in the period January 14 – February 15... The surplus milk from ewes is fed from feeding bottle to the lambs that I thought could not get enough. We leave one lamb with the ewe and we feed the other from the bottle... [Do you clean the pasture yourself or you ask for the services of a specialized firm?] I work with a team. This year we cleaned up about 40 ha, in a first stage, and now we have just finished the second. I must go and measure and we will see. [What is the exact meaning of cleaning up the pasture?]. Clearing of wild vegetation...*

– **utilized labour force – traditionality:** *[Who is milking the ewes?] My dad and I. My wife and my mother are with the sheepfold, as we sa. So they are watching the animals, make all necessary things. They do the shepherding, as we say. They get the milk curdled, make the cheese;*

– **storage, hygiene maintenance:** *[Are you milking the cows in pots? What are the pots made of?] Stainless steel. Stainless steel buckets... they are washed and boiled in big boilers. [How do you wash the bottles where you keep the rennet?]. The bottles, we do not use them any more. They are from plastic and we throw them away. The jars are washed with clean water and they are put into hot water before use;*

– **product recipe – traditionality degree:** *Natural rennet... we call it curdler. It is something curdling in the lamb’s stomach. This stuff is well washed, with salt and milk and put into jars... [How many in a jar?]. It depends on in how many lambs we find that curdler, as we call it. In the ewes with fatter milk we find more, in the ewes with a less fat milk, less curdler or no curdler at all...*

[How long do you keep it in the jar?]. A year, two years. Well, we use it from one year to another. We store them in a cold place, in the cellar. When we open the jar, all stomachs are broken and mixed together and then the liquid is strained. We put them into bottles of 1.5 or 2 liters and they are kept in a cold place... In 10 liters of milk, one spoonful of rennet will suffice... We make sweet curd, and then we put

salt in it. The result is a salty cheese. [How long does it take to make the curd?] Well, until it is dripped. 3–4 hours. When all the whey is gone, we have the curd, it has a round shape, like a ball. When it is taken down from the mould it remains compact. It is cut into slices and is salted. It is put into pots to get salted.

3. Product “potatoes”, producer Sandu Septimiu, Răchitova village, Răchitova commune:

– *cultivated area and obtained yields*: About 30–35 ares... [I obtain] about 3.5 tons. [What was the cultivated area in year 2008 and in 2009?] *Well, the same, 30–35 ares. [Generally, is this the area?] Yes. Sometimes larger. When I did not plant wheat, I planted potatoes instead. I do not sow wheat every year. Crop rotation. So, I plant potatoes, in place of wheat, and then, I have potatoes on 60 ares;*

– *planting stock, seed treatments – traditionality and ecological sustainability*: [Do you put apply chemical fertilizers in potatoes?] *No, I don't. [Do you use pesticides?] No. [Herbicides?] Not at all. We have only 30–35 ares, as I said, I shovelled it with my folks, two manual weedings and, that's it. [What do you treat them with?] Manure and shovel. [So, you do not apply herbicides, don't you apply anything?] No, so far we have not... we applied only manure. Potatoes do not get diseases and they have another taste. If I go to the market in Hunedoara and a lot of people know me there, the people who know me say: you give me so many kilos, because I have bought from you last year, too; [The potato seed, where do you buy it from? We bought it from Hațeg from these farmers, from Tot and VasIU, from Sălașu;*

– *storage – traditionality degree*: *We put the bags there, the bigger ones for the market, the smaller are for us, we keep them for seed, and the smallest are fed to animals, we put them in another bag. [Where do you store them?] In the cellar;*

– *utilized labour force – traditionality degree* [when you harvest, do you hire 1–2 people to help?] *Yes. Today, for instance, my folks are harvesting the potatoes. I have a woman from the neighbourhood, from here, with them. She is helping us, for money, of course... in the family we shoveled them, two manual weedings, that's it;*

– *production stage – traditionality degree and ecological sustainability*: *We are weeding manually with the family. It is not a big area and we do it by ourselves. The second weeding is not by shovel. The people here in the village have horses and we do the job with the plough. [Is the plough made of iron?] Yes, iron made, ...usually in our area, the Colorado beetle does not resist... We sort them in the field, when it is the time. I put them at the edge of the place where I have potatoes and sort them.*

4. Product “bee honey”, producer Avramescu Miuțu, Vălioara village, Răchitova commune

– *infrastructure – traditionality degree, obtained yields*: *Now we have 53 families. We are making acacia and poliflower honey here. About 100 meters*

from here, we have another row of houses and a carpentry workshop and the beehives are there... on the average, we obtained 10–12 kg per beehive... We made some tincture, for us;

– **traditional treatments:** Just today I have made the treatments for the winter, as winter is coming. There are acarians, lice that can harm them in winter and now we are getting them ready for the winter... The only treatment we make is with varaket.

– **equipment – traditionality degree and ecological sustainability:** We have a centrifugal box with 3 frames, it is from zinc-coated metal... It is manually operated. We have a double sieve, not to harm the honeycombs. We have not bought all this stuff, protective clothing, veils and hoods. We have a chisel with which we disjoin the frames and an uncapping fork. We have 35-liter plastic cans for 50 kg of honey... We also mounted propolis collectors which are made of cloth... It has small holes in it. The bee covers all the small holes with propolis;

– **utilized labour force – traditionality degree:** Here in the family, it depends on who is available. My dad and I take out the frames and bring them home and my mother, my brother do the job;

– **the production stage – traditionality degree and ecological sustainability:** This year we caught about 6–7 swarms of runaway bees. 1 or 2 may be missing, which we saw leaving and couldn't catch them. There are trees in the neighbor's garden, here at the back, and they set there in the trees... [These young ones, from this year, have they grown well, as you said that there was not much poliflower honey?]. The swarms this year went well. Yes. We made some swarms later in the year. We said that maybe we make more poliflower, but it did not work... With us, the extraction period with acacia honey is May 25–30. If it is warm, the acacia flowers will fade faster and we must obtain the honey earlier by a week. Poliflower starts, it is much hayfield here, there are many flowers like this in the field: blackberry, hip rose, so poliflower we collect it at the end of July, early August. It depends on the weather, but around 20 we start to get the hive ready for winter.

[What does it consist in?] We do here as were taught at school, we centralize the honey. We start preparing them for the winter, we put 7 frames in the beehive, we start to centralize, we put the frame with the most honey in the middle, then centralize and equalize. At the center it must be the most, because the bundle starts to form there, so the most feed must be there.”

The analysis of the proper technological process reveals a series of particularities that can represent the elements of a theoretical pattern for assessing the interfunctionality of natural and human systems, with reference to the traditional products:

- The use of some animal breeds and plant varieties specific to the investigated area (mainly valid in the case of animal products– the rejuvenation process being based upon the existing herds);

- The production process has a strong traditional character– traditional methods are used for housing the animals, animals feeding is based upon fodder obtained from own production and from grazing, the recipes used are family “heritage”;
- The labour force is generally provided by the households members (sometimes seasonal labour is used in crop production);
- The production process complies with the environmental standards (rational controlled use of the absolutely necessary treatments).

5. CONCLUSIONS

Having in view the stages of the technological process, the presented traditional products, both of animal and vegetal origin, depending on the traditionality and ecological sustainability degree, fall into the category of traditional products with maximum ecological sustainability, being obtained following the traditional technological links and complying with the environmental standards (without any environment aggression by chemicals).

The traditional activities on which these products are based represent the continuation of the occupational patterns specific both to the respective zone and to the respective families, the households being endowed with traditional production equipment, most of it inherited from the older generations.

At the level of the investigated communities, a strong zonal traditionality is manifested, mainly in the case of animal products, as well as an obvious process of its propagation at the level of the nearby/neighbouring communities.

In conclusion, the support to these traditional agricultural activities with a strong ecological character represents a modality to foster the development of the “local patrimony” and an important approach to the process of maintenance/preservation of the cultural and actional identity of the rural areas.

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