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COMMUNE CAZASU: PERI-URBAN ECONOMIC AND LAND PATTERNS

ABSTRACT

The study of land and economic patterns presupposes the analysis of the existing economic and social structures of the peri-urban area named Cazasu. This whole structural ensemble has generated and has been generated by the community and individual behaviours, greatly influenced by the legal regime of ownership. Rural communities have a social behaviour depending on the way in which the land ownership problem has been solved up. Obviously, for any rural community, land is not a simple production mean, and this is even more valid for a peri-urban society; it is also an obvious fact that, in the case of ruptures, of fundamental changes in the ownership relationships at the rural society level, the social restructuring has become an ample process, with a real historical dimension.

Key words: peri-urban, legal regime, irrigations.

JEL Classification: O12.

1. INTRODUCTION

The peri-urban area Cazasu is a space of multiple relations between the rural structures and entities and of functional relations between the extra-rural systems and the local economic and social structures. The integrated approach to the micro-social systems and the multiple relations between the rural local and extra-local terms starts with the analysis of the micro-economic mechanisms present at local community level, in the area Cazasu, continuing with the investigation of the eco-system – local community relation; in this stage, the factors determining the environment change become primordial:

- direct factors – the changes in the local land use and the soil occupation configuration (land transformation, change of river flow and water tapping, etc); introducing pressure upon species; discharge of pollutants and abusive fertilizer use; crop harvest and livestock production; climate variability and change;
- indirect factors: demographic (population growth and distribution); socio-political (governance and legal framework); scientific and technological (agricultural techniques); cultural (option for certain behaviors).

The rural communities have a social structure that depends on the way in which the land issue has been solved. The way in which the land issue has been solved reflects the valorization of the rural space by the global society and the type of tacit contract between society and agriculture. The establishment of the private ownership right represented the first step in the new agrarian structure materialization. In the absence of efficient measures for land ownership consolidation, farms emerged and developed, at least in number, in terms of an improper competitiveness for the capitalist spirit, as the too small and too dispersed land structures limited the productivity and competitiveness of the rural players.

2. MATERIAL AND METHOD

The method used was a mix of direct observation and interviews with the community formal leaders; the following analyses were performed:

– longitudinal analyses – evolutions in time of the main phenomena and processes specific to the investigated communities, accompanied by primary analyses;

– documentation analyses – inventory of documents referring to the demographic, economic and institutional processes;

– bibliographic analysis – general information on Cazasu community, identification of sources, selection of sources, elaboration of sociological explanations.

The sources used were primary sources (non-periodical sources: monographs, scientific reports and periodicals – specialty journals, local newspapers) and secondary sources (analytical and systematic processing of bibliographical data obtained). The instruments used were the in-depth interview and the Commune Fiche. The data processing was based on the SPSS software.

3. RESULTS AND DISCUSSIONS

3.1. THE COMPLEX ANALYSIS OF THE INVESTIGATED AREA DEPENDING ON THE JURIDICAL REGIME OF OWNERSHIP – THE LOCAL SYSTEM

I. Land size and soil characteristics. The rural locality Cazasu is located in an agro-system, taking into consideration the very high share of agricultural land in total land area: the share of agricultural area in total land area is 90.0%. The total area of the locality has a structure specific to the plain area: arable area accounts for 90.9% of total agricultural land, the area under forests accounts for 0.40% of total area and land under waters 1.79%. (Agricultural and Rural Development Directorate, Braila county, October 2016)

The total area, in accordance to its characteristics and productive profile of the land components, is subject to a juridical regime of property (Table 1):

– the arable land and the land under pastures are exclusively *into individual ownership*;

– the land under orchards, forests and the non-productive land are *into local public ownership* of the territorial administrative units (town hall);

– the land areas under communication ways are into the public ownership of the State and into the *public ownership of the county and local authorities*, i.e. 9.6%, 1.7% and 88.7% respectively;

– the *public ownership of the State* comprises 69.3% of the land under water (Ministry of Environment, Waters and Forests), 9.6% of the land areas under buildings and yards (Ministry of Communications and Information Society);

– the ownership of legal entities accounts for 13.1% of the land areas used for constructions;

– the degraded, non-productive land is under a juridical regime specific *to the local public ownership* (Annex 1).

Table 1
The structure of total area – ownership regime

- hectares -

	Ministry of Environment, Waters and Forests	Ministry of Communications and Information Society	County	Administrative-territorial unit – town hall	Legal entities	Natural persons	Total
Arable land						2229	2229
Pastures				100			100
Vineyards						12	12
Orchards				111			111
Agricultural land				211		2241	2452
Forests				11			11
Land under waters	34			15			49
Communication ways		6	1	55			62
Land under buildings and yards				14	12	65	91
Degraded, non-productive land				58			58
Non-agric. land	34	6	1	153	12	65	271
Total	34	6	1	364	12	2306	2723

Source: Statistical information, October 2016, Agriculture and Rural Development Directorate, Brăila county.

The structure of total area is characteristic for the plain zone: 9% is represented by the land within the built-up areas of localities and 91% by the land outside the built-up area. At present, there are 2111 private ownership titles for the agricultural land outside the built-up area, with a total area of 2150 hectares. (Brăila Cadastre and Land Registration Office, 2016).

Soil characteristics. The territory of the investigated area has been subject to the anthropic impact, the natural vegetation being replaced by crops, which resulted in "stopping the natural process of humus bio-accumulation and in the decrease of the humus reserve in soil implicitly". (Study by OJSPA Brăila, 2006:5)

Soil quality permitted the development of farming activities and the consolidation of an extensive economic system: "Soils on the territory of the commune Cazasu, Brăila county, were formed under plain relief conditions (2313.51 ha – 100% of the territory area) on parenthal materials represented by loess deposits, under droughty continental temperate climate conditions, characterized by a high average annual temperature (11ºC) and low average annual rainfall (460.5 mm)". (Study by OJSPA Brăila, 2006:6-7)

The eco-system quality and specificity were modified by the utilization of the irrigation system; in this respect the hydro-geological and hydro-salinity studies, performed in the Brăila Terrace system in the 3 hydrotehnical-administrative subsystems, Cazasu, Movila Miresii and Valea Cânepii, permitted the identification of the main changes/modifications (the data presented are taken from the latest soil surveys conducted in the year 1998; although the irrigation system operation was deficient and the impact on soil and fauna had much lower values, the invasion processes remained the same, in tendency).

– Modification of the groundwater level: "the average weighted level increased from 3.9–4.5 m up to 1.8–2.4 m" (Marin, Ghe., 1998:13).

– Modification of the mineralization degree: "the ground water mineralization degree continuously decreased, from 2.7–3.75 g/l up to relatively stable values, of 2.3–1.8 g/l" (Marin, Ghe., 1998:13).

– Change of alkalinity, high salinization probability: "… alkalinity increase tendency, determined both by the change of ion ratio in the soil solution and by the input from the irrigation water… levigation and accumulation of soluble salts in the soil profile at low depth (70–90 cm), with the danger of degradation by secondary salinization" (Marin Ghe., 1998:13). The harmful impact upon soil resides in the challenge of soil alkalinization, which in the soil surveys is explained as follows: "… input of carbonates through irrigation water and eventually by an increase of soluble and absorptive natrium content. … On the average, the pH-values are by 0.30–0.50 pH units higher compared to the initial conditions (1978), both in the upper horizons and on profile and at their basis." (Nițu, V., Surăianu, V., Rotea, I., 1992:42)

In the early 1990s, the soil modification processes generated by the irrigation activity were identified in the concrete manifestations present on the area in which the arable land of the commune Cazasu was also included:

– "the major physical characteristics of the chernozems formed on loess have not suffered essential modifications… but a series of negative effects existed… compacting tendencies and clodding, as well as incrustation" (Nițu, V., Surăianu, I., Rotea, I., 1992:43);

– "the chemical characteristics were drastically influenced: the general decrease of humus content, the increase of the pH values on the entire soil profile and the emergence of alkalinization and alkalization phenomena. Major modifications were noticed with regard to the calcium carbonate content and the forms under which it is presented. A levigation process of the upper horizon is almost generalized" (Nițu, V., Surăianu, I., Rotea, I., 1992:43);

– "the faunistic activity was drastically diminished as a result of the prolonged moisture excess, which modified the life conditions of the specific fauna" (Nițu, V., Surăianu, I., Rotea, I., 1992:43).

II. Economic and social dimensions. In the test area Cazasu, the economic and social life has been shaped starting with the soil occupation, being the consequence of the traditional way of emergence and development of rural localities in the Baragan Plain, on which the modernization was superposed, which implied life quality change by real estate logistics and territorial infrastructure endowment.

Economic characteristics. The ownership regime dynamics has determined changes in the agricultural land utilization modality and the emergence of certain local infrastructure phenomena, specific to each historical period (Table 2).

At present, we can notice the consolidation of the land occupation modality, emerged in the '90s: the production techniques, the range of mechanization works, the amount of chemical fertilizers applied, the irrigation systems or the techniques replacing irrigations are the concrete modalities by which farmers relate to the land areas into their ownership; at community level, the initial characteristics have been perpetuated.

Table 2
Land occupation modality – test area Cazasu

	2010	2016
Habitable area, m²	54 944	94 599
Length of water distribution network – km	21.1	21.5
Length of gas distribution pipelines – km	13.8	13.8
Agricultural area in total area – %	90.0	89.7
Area under non-agricultural land in total area – %	9.9	9.9
Area occupied by constructions – %	3.3	3.3
Area occupied by communication ways and railroads – %	2.2	2.2

Source: Cazasu Commune Fiche, 2010, The Agricultural Register 2010–2014, statistical data from the Agriculture and Rural Development Directorate, Brăila County, 2016 and the Danube Company for Public Utilities, Brăila, 2016.

Significant fluctuations appeared at the level of arable land occupancy: in the context of prevailing areas cultivated with cereal crops (Table 3), a strong mobility of soybean crops emerged. We mention that in the year 2015, 4 hectares were cultivated with sugar beet. (Cazasu Commune Fiche, October 2016)

Table 3
The area cultivated with the main crops and average yields, commune Cazasu, 2011–2015

Crop	Area – ha		Average yield – tons/ha	
	2011	2015	2011	2015
Wheat	646	593	4.81	3.65
Maize	230	474	4.80	3.84
Rapeseed	196	–	2.30	–
Sunflower	472	910	2.41	2.32

Source: Agriculture and Rural Development Directorate Brăila, 2011, 2016.

The economic activities specific to the test area are completed by the livestock raising activities; the number of animal herds has decreased and economic orientations outside the farming sector are taking shape (Table 4). The agricultural machinery endowment is quite modest: in 2011, there were 13 tractors in use, and their number reached 26 in 2015, while the number of draft animals decreased from 80 (in 2011) to 60 (in 2015). (Cazasu Commune Fiche, March 2012, October 2016)

Table 4
The livestock number dynamics – test area Cazasu

	2011	2015
Bovines	467	317
Sheep	935	1692
Goats	297	164
Swine	827	214
Poultry	16722	10810

Source: Cazasu Commune Fiche, March 2012, October 2016.

Characteristics of the irrigation system. The complex motivation of the increasingly low utilization of the irrigation system has led to the diminution of the impact upon the ecosystem in the test area: in 2011, out of the total area equipped with irrigation facilities 86.9% was contracted, while in 2015 this share decreased to 25.6%; the supplied water volume in 2008 totalled 2 431.6 thousand m³, down to 344 thousand m³ in 2015 (Table 5).

Table 5
The dynamics of the essential characteristics of Cazasu irrigation system

	Area equipped with irrigation facilities – ha	Contracted area – ha	Supplied volume – thousand m³
2011	1460	1270	671,1
2015	1460	375	344

Source: National Land Improvement Agency (NLIA), Territorial Land Improvement Branch "The Lower Danube", 2012, 2016.

The farms affiliated to OUAI AgroDunărea did not benefit from water from the irrigation system (no contracted hectares). Significant diminutions were also noticed at OUAI Pietrosu-SPP27, Danova Leg-SPP26 and Pietrosu-SPP25 (Table 6).

Table 6
OUAI dynamics in the Cazasu test area

	OUAI	Area equipped with irrigation facilities ha		Contracted area ha		Supplied volume thousand m³	
		2011	2015	2011	2015	2011	2015
Cazasu		1460	1460	1270	375	671.7	344
SPP24	Nova Prod Terra	105	105	105	105	37.5	95
SPP25	Pietrosu	60	60	60	60	174	105
SPP26	Danova Leg	170	170	150	150	120	100
SPP27	Pietrosu	60	60	60	60	139.2	44
SPPICA	AgroDunărea	1065	1065	895	–	201	–

Source: Situation of the stations UAT Cazasu, Brăila County, NLIA, Territorial Land Improvement Branch "The Lower Danube", 2012, 2016.

The economic behavior favorable to irrigation utilization was subject to an inhibition phenomenon resulting from a series of particularities of the area (for instance OUAI Agro-Dunărea became non-functional) and by the financial incapacity of farms to bear the related expenses. The water supply fee increased in the period 2011-2015, from 199.29 to 244.23 RON/1000 m³, while the annual fee was up from 0.75 RON/ha to 22.76 RON/ha (Table 7).

Table 7
Main characteristics of the pumping stations in Cazasu area

Cazasu	OUAI	Water supply fee RON/1000 m³		Annual fee RON/ha		Specific consumption kw/1000 m³	
		2011	2015	2011	2015	2011	2015
SPP24	Nova Prod Terra	199.29	244.23	0.75	22.76	598.9	598.9
SPP25	Pietrosu	199.29	244.23	0.75	22.76	400	400
SPP26	Danova Leg	199.29	244.23	0.75	22.76	598.9	598.9
SPP27	Pietrosu	199.29	244.23	0.75	22.76	443	443
SPPICA	Agro-Dunărea	121.11	222.8	0.75	–	447	447

Source: Situation of the stations in TMU Cazasu area, Brăila county – NLIA, Territorial Land Improvement Branch "The Lower Danube", 2012, 2016.

This inhibiting increase for farmers is mainly generated by the increase of electric power price; the irrigation water expenses and the operating expenses also increased (Table 8).

Table 8
Structural dynamics of the water supply fee in Cazasu test area

Cazasu	OUAI	Electric power price RON/1000 m³		Irrigation water expenses RON/1000 m³		Operating expenses RON/1000 m³		Indirect expenses RON/1000 m³		Profit RON/ 1000 m³	
		2011	2015	2011	2015	2011	2015	2011	2015	2011	2015
SPP24	Nova Prod Terra	175.47	214.92	10.9	13.2	9.04	11.09	3.51	4.7	0.37	0.75
SPP25	Pietrosu	175.47	214.92	10.9	13.2	9.04	11.09	3.51	4.7	0.37	0.75
SPP26	Danova Leg	175.47	214.92	10.9	13.2	9.04	11.09	3.51	4.7	0.37	0.75
SPP27	Pietrosu	175.47	214.92	10.9	13.2	9.04	11.09	3.51	4.7	0.37	0.75
SPPICA	AgroDunărea	101.86	194.23	5.33	12.03	9.04	11.09	3.51	4.7	0.37	0.75

Source: Situation of the stations in TMU Cazasu area, Brăila county, NLIA, Territorial Land Improvement Branch "The Lower Danube", 2012, 2016.

From an institutional perspective, one can notice the neutrality of influencing the irrigation system performance; the county structures manifest their attributions only in the field of irrigation system administration. In this respect, there is a structural and implicitly functional constancy within the Administration Unit North Brăila, the Lower Danube Territorial Branch of the National Land Improvement Agency (Table 9). The total number of employees, in the period 2011–2016, remained at 51, with average wages at 1481 RON.

Table 9
Brăila Nord Administration Unit

	Employees		Average wages	
	TESA	Workers	TESA	Workers
2011	3	48	3333	1366
2015	3	48	3333	1366

Source: Brăila County Branch, NLIA, 2012, 2016.

Social characteristics. The social profile of the Cazasu Commune is specific to a peri-urban locality.

a) Socio-territorial characteristics. From the perspective of the territorial status, the investigated rural community is characterized by the close proximity to the urban area, which implies the multiple economic, cultural educational polarizations and the excessive dependency on multiple urban services (Table 10).

Table 10
Proximity to certain objectives

	Distance to: km
Capital of the county	5
Closest locality	5
Closest town	5
Closest railway station	6
Closest hospital	5

Source: Cazasu Commune Fiche, March 2012, October 2016.

Out of this reason, there is *a causal relationship between the economic and demographic modernization and the geographical transfers of incomes (wages, pensions, social security payments; this type of relation is not based on the productive capacity of the area, because the urban proximity is not necessarily productive for the rural area.* (Talandier, M., 2014)

b) Socio-economic characteristics. The representative economic structures are related to agriculture, although the peri-urban status implies a dysfunctional utilization of the zonal productive capacity. From the investigated data it resulted that the farming practice is of extensive type, the structure of crops maintains a note of strong traditionality: the preferred crops are the cereals, but each year soybean and sugar beet crops have been also introduced on small areas. (Cazasu Commune Fiche, March 2012, October 2016)

The non-agricultural economic space did not experience quantitative and qualitative evolutions in the period 2011-2015; the same non-agricultural units or providers of services were maintained, with a constant number of employees; for example, the number of employees in the workshop of metallic fittings remained 50, while the number of employees in shops continues to be 40.

The economic substantiation of the social structures and processes, in their evolution, did not determine changes or noticeable modifications. The number of commuters remained at 250, having as destination the industrial sectors and services located in Brăila Municipality.

c) Characteristics of the local life and community governance. The social problems of the rural community Cazasu stem from the need to increase the living standard and to modernize the agricultural structures (Table 11). We can see that non-solving these problems led to social stagnation, a type of "social petrification" of the community modernization conditions, including the agricultural sector.

Table 11
Evolution of the problems in Cazasu community

	2011	**2016**
Roads	Reduced	reduced
Drinking water	No	No
Isolation	No	No
Air pollution	No	No
Water pollution	Reduced	No
Soil pollution	No	No
Health services	No	No
Education services	No	No
Electrification	No	reduced
Public lighting	No	reduced
Other	serious –irrigations *	serious – gas supply network **, serious – land fragmentation ***, serious – irrigations ****

* "The irrigation system should be rebuilt" – mayor of Cazasu commune, March 2012.
** "We have no gas supply network in our commune, it only exists inside the locality on a small area of 700 m^{2}" – mayor of Cazasu Commune, October, 2016.
*** "The land is highly parcelled, and the parcels do not reflect the reality, the situation is difficult to be accepted by the people" – mayor of Cazasu commune, October 2016.
**** "They hardly irrigate today " – mayor of Cazasu commune, October 2016.
Source: Cazasu Commune Fiche, March, 2012, October 2016.

There is a low participation of inhabitants to the life of the locality; in the investigated period, no significant sociological evolutions were noticed; the evaluation by the formal leader of the commune (the mayor) indicates a passive behaviour, a social non-engagement regardless of the nature of the local problem and a superficial assumption of societal requirements. There is a non-participatory type of governance (Table 12).

Table 12
Participatory behaviour – dynamics

	2011*	2016**
Participation in public works	No, they are lazy, if there is a little something left to be done, why doesn't the Town-hall work on it?	So and so
Inhabitants' initiatives in the last 3 years	No, but the people who have villas have asked why there is no sewerage network	No
The implementation procedure of a new norm, law	The Local Council decides, the mayor executes the order	Meetings of the Local Council
The implementation modality	Financial constraint	They know there is a law
The most difficult rule to be imposed	Sanitation	Local fees, sanitation, because they do not understand them

* The answers of the mayor of Cazasu commune, March, 2012.
** The answers of the mayor of Cazasu commune, October, 2016.
Source: Cazasu Commune Fiche, March, 2012, October, 2016.

3.2. THE COMPLEX ANALYSIS OF THE INVESTIGATED AREA BY THE LEGAL REGIME OF OWNERSHIP – DEMO-SOCIAL MICROSYSTEMS

I. Demographic characteristics – the rural household microsystem

*a) **The demographic size.*** In the commune Cazasu, the average demographic size of household is 2.6 persons /household, which is under the national average of rural households 2.83 persons /household (Census of population and Dwellings, 2010).

Most households in the commune Cazasu (29.4%) consist of only one person (Table 13). At the opposite pole, the households with a large demographic size, with five and over 5 persons, represent 9.2% of total investigated households, a

much smaller share compared to the Romanian rural space average, i.e. 15.6% (Census of population and Dwelling, 2010).

Table 13
The structure of households by the number of persons

% in total households

	Number of persons on household					
	1 person	2 persons	3 persons	4 persons	5 persons	Over 5
Rural (1	25.4	26.2	17.4	15.4	8.3	7.3
Cazasu (2	29.4	25.4	**18.6**	**17.4**	4.7	4.5

Source: (1 NIS (2013). Census of Population and Dwellings, 2010; (2 Processing of data from the Agricultural Register 2010–2014, commune Cazasu, Brăila county, October 2016.

From these data, we can draw a preliminary conclusion according to which *the demographic pressure on the land resources at the level of households from the commune Cazasu is lower than that at the Romanian rural space level*.

b) The structure by genders. From the gender structure perspective, the *masculinization of household ownership* is quite a noticeable phenomenon, as ¾ of the owners registered in the Agricultural Register of the commune Cazasu are men and only 25% are women. This masculinization phenomenon is stronger in the commune Cazasu than at farm level, where, according to the data of the latest Farm Structure Survey (Eurostat Data,2013), 67% of the Romanian agricultural farms are managed by men and 33% by women.

c) The structure by age categories. From the analysis of the information from the Agricultural Register of the commune Cazasu (Table 14), it results that the average *age of household owners is 55.4 years, a relatively old age which can hinder the adoption of innovations, in general, and of agricultural innovations, in particular*. The average age of household men owners is younger (53.5 years) compared to women (61.1 years) due to the higher life expectancy of the latter.

Table 14
Age structures of the household owners in the commune Cazasu

	Average age	Age categories			
		≤ 30 years	31-50 years	51-60 years	Over 60 years
Owners	55.4 years	3.2 %	38.4 %	21.1 %	37.2 %

Source: Processing of data from the Agricultural Register 2010–2014, commune Cazasu, Brăila county, October 2016.

The average age of the population in the commune Cazasu is 48.5 years, higher than the national average, which was 40.8 years on January 1, 2015 (NIS 2016 Romanian in Figures.Statistical Breviary). As a result, the *household members in the commune Cazasu have a stronger ageing degree than the national average. The direct consequence of the high incidence of the ageing phenomenon, both of household owners and of household members in the commune Cazasu is a*

higher resistance to the adoption of technical and technological innovations in all aspects of economic and social life, including agriculture.

II. Land ownership structures – rural household micro-system

a) Land property size. According to the data from the Agricultural Register, *the size of land area into ownership* at the level of the land owners in the commune Cazasu is 1.13 ha/household (Table 15).

Table 15
The land property average size in the commune Cazasu

	% land owners	average size into ownership *(ha/household with land into ownership)*
Total area into ownership	100	1.13
Arable area into ownership	55.9	1.78

Source: Processing of data from the Agricultural Register 2010–2014, commune Cazasu, Brăila county, October 2016.

Just over *half of the land owners in Cazasu (55.9%) own arable land* in the structure of their total land ownership and the *average size of the arable areas into ownership is 1.78 ha*. The comparison of this value to the average size of the arable area of a farm at national level 5.7 ha arable /farm (NIS 2012, General Agricultural Census 2010), results at national level reveals that the agricultural land ownership in the commune *Cazasu is more fragmented than in the case of the agricultural farms nationwide*.

b) The fragmentation of landed properties. The analysis of structure by size classes of landed property in the commune Cazasu indicates that the largest part of owners (52.6%) own total land areas under 0.3 ha, which confirms *the high fragmentation of land property in general.* (Table 16).

Table 16
Structure of land owners in the commune Cazasu by size classes of land into ownership and arable land

% in total owners with land into ownership

Land area category into ownership	Size classes of land into ownership (ha)							
	< 0.1	0.1-0.3	0.3-0.5	0.5-1	1-2	2-5	5-10	> 10
Total land area, out of which:	**25.0**	**27.6**	5.6	9.1	13.4	15.6	3.1	0.5
– arable land	4.1	7.8	6.5	8.1	**12.1**	**13.9**	3.0	0.4

Source: Processing of data from the Agricultural Register 2010–2014, commune Cazasu, Brăila county, October 2016.

The fact that only half of land owners have arable land into ownership induces the idea that the arable land of the commune is less fragmented. Moreover, half of

the households that own agricultural land have more than 1 hectare into ownership. As a result, we can appreciate that the *fragmentation degree of arable areas into household ownership is lower than in the case of overall land ownership.*

c) The land ownership structures by age of owner. Due to the old age of most land owners, we expect a significant resistance to change and to the acceptance of innovation transfer in the management of land resources into ownership.

The young land owners own the smallest land areas (1.02 ha arable land on the average) while the owners over 60 years old have the largest arable areas into ownership, i.e. 2.20 ha (Table 17).

Table 17

Structure of land into ownership by the age of land owners in the commune Cazasu

Age categories of land owners	Total land into ownership		Arable land into ownership	
	% land owners	average land area into ownership *(ha/ household)*	% land owners	average land area into ownership *(ha/household)*
under 30 years old	3.0	0.68	3.1	1.02
31–50	36.7	0.55	25.3	1.16
51–60	21.9	1.05	21.3	1.66
over 60 years old	38.4	1.76	50.3	2.20
Total	**100.0**	**1.13**	**100.0**	**1.78**

Source: Processing of data from the Agricultural Register 2010-2014, commune Cazasu, Brăila county, October 2016.

As a result, the adoption rate and speed of territorial expansion of innovative practices in the management and exploitation of land resources can be slowed down out of two reasons:

– the structure by age categories of land owners, in which the persons over 60 years old prevail,

–most agricultural land areas are owned by old persons, less opened to the adoption of innovations.

In the commune Cazasu, there is an inverse dependency relation between the age of landowners and the land areas into ownership, which can slow down the speed and territorial coverage in the adoption of innovations in agriculture.

III. Buildings and annex constructions. The buildings with housing destination, together with the annex constructions, represent extremely important elements for the rural households, having an essential role in their social life, as a central, polarizing space, as well as a functional role, supporting the household usual activities as well as their economic activities.

a) Buildings with housing destination . The housing fund of the commune Cazasu consisted of 918 buildings with housing destination in the year 2014, out of which 855 main buildings at household level, 59 represented the second buildings and 4 represented the third buildings. (Table 18)

Table 18
Buildings with housing destination, Cazasu

Indicator	First building		Second building		Third building	
Number	855		59		4	
Average age in years	35.9		28.9		7.0	
Average area – m^2	110.6		68.7		94.0	
Structure of buildings, by construction period						
	No.	%	No.	%	No.	%
<1950	178	20.9	7	12.1	–	–
1950–1980	255	30.0	15	25.9	–	–
1980–1990	32	3.8	3	5.2	–	–
1990–2000	155	18.2	12	20.7	1	25.0
>2000	231	27.1	21	36.2	3	75.0

Source: Authors' processing based on SPSS data, Agricultural Register 2010–2014, commune Cazasu, Brăila county, October 2016.

The main buildings prevail in the housing fund, which are characterized by higher age and average area than the secondary and tertiary constructions. In relation to the time periods when the main and secondary constructions were built up, the housing fund of the commune Cazasu had a relatively balanced development, sustained both by the number of buildings and by their average area, both before the 1980s and after 1990. The only period that represents an exception, from this point of view, is 1980–1990, when the number of new constructions with housing destination, in the commune Cazasu, significantly decreased, compared to the other periods. (Table 19)

As regards the third buildings that exist on certain households in the commune Cazasu, these were built exclusively after the year 1990, most of them after the year 2000, having an average area of 94.0 m^2.

The structure of the constructions from the category first building with housing destination, by construction period, is similar to that of the secondary buildings, a great part of them being built in two large distinct periods, before the 1980s and after 1990, mainly after the year 2000.

Table 19
Buildings with housing destination, by construction period, Cazasu

Period	First building		Second building	
	Average area, m^2	% of total number	Average area, m^2	% of total number
<1950	87.4	20.9	42.5	12.1
1950–1980	90.4	30.0	43.7	25.9
1980–1990	95.0	3.8	58.9	5.2
1990–2000	92.8	18.2	54.6	20.7
>2000	165.6	27.1	107.6	36.2

Source: Authors' processing based on SPSS database, Agricultural Register 2010–2014, commune Cazasu, Brăila county, October 2016.

The period 1980–1990 is a period of relative stabilization of the housing fund, the number of the new constructions being lower compared to the other periods. This evolution, characterized by the constant development of the housing fund, in the two large time intervals, separated by a stabilization period, can be based both on social factors, i.e. a demographic stabilization of households up to the level of the 1980s, and on economic factors, represented by a stronger scarcity of available resources in the period 1980–1990; at the other end of the interval, the resumption of the housing fund development was produced under the background of the deep reforms produced after the year 1990 in the field of ownership, free movement of persons and merchandise, as well as of the income growth opportunities represented by entrepreneurship and freedom of movement on the labour market.

The location of the commune Cazasu is also an asset, being very close to Brăila Municipality, as county residence, and to the main national and European road transport network, which strongly supports the flows between the urban and rural areas and creates increased opportunities for the rural community development.

Furthermore, this quantitative evolution of the housing fund of the commune Cazasu was doubled by a qualitative evolution represented by the average area of the buildings with housing destination, which has constantly increased in time, with only one exception. The changes produced in the number and size of buildings, throughout time, are completed by those produced at the level of utilized construction materials (Table 20).

Table 20

Structure of first building, by construction materials and construction period, Cazasu

%

Period/ Materials	Concrete	Brick	Wood	Half- timber / adobe	Brick and adobe	Wood and adobe
<1950	–	2.8	0.6	96.0	0.6	–
1950–1980	0.4	11.8	–	85.8	2.0	–
1980–1990	–	31.3	3.1	65.6	–	–
1990–2000	–	38.7	1.3	56.8	3.2	–
>2000	0.4	81.4	2.6	15.2	–	0.4

Source: Authors' processing based on SPSS database, Agricultural Register 2010–2014, commune Cazasu, Brăila county, October 2016.

Although, the share of buildings made from affordable, cheap materials, i.e. half- timber/adobe continues to prevail (62.7% of total buildings), there is an obvious transition tendency towards modern materials, i.e. bricks, mainly after the 1990s and after the year 2000 in particular.

Out of total houses built before 1950, 96.0% are made of half-timber and adobe and only 2.8% of bricks; the traditional materials also prevailed in the next periods of time, but their share continuously decreased, in favor of modern materials, which started to represent an important choice, beginning with the period 1980–1990; step by step, these became the preferred materials for the construction of a new house – out of the total new buildings after the year 2000, 81.4% are made of bricks and only 15.2% of half-timber and adobe.

With the transition to modern construction materials, we also assist to a significant change in the size of buildings, the average area being almost double compared to that of the buildings constructed before 1950 and significantly higher (over 75%) than that in the period 1990–2000. In addition, there is an inversely proportional relation between the age of the household owner and the average area of buildings – the younger the age, the bigger is the average area (Table 21).

Table 21
The average area of the first construction, by age categories of owners

Age categories of owners	Average area–m^2
<30 years	125.4
31–50 years	121.9
51–60 years	112.4
>60 years	100.3

Source: Authors' processing based on SPSS database, Agricultural Register 2010-2014, commune Cazasu, Brăila county, October 2016.

This process resulted from the accelerated development of the construction sector after the year 2000, the increasingly high level of the population's incomes in this period and the peri-urban character of the commune Cazasu, which has determined important urban–rural flows and represents an attractive space for the city dwellers to invest in this sector on the territory of the commune, either for their personal use or out of commercial reasons.

As regards the structure of the second building identified at the level of certain households in the commune, the following types of materials prevail in the construction materials used, regardless of the period when these were built up: half-timber /adobe even in the case of those built after the year 2000 – 57.1%, and bricks – 42.9%.

Having in view the above-mentioned aspects, we can highlight a series of particularities of the housing fund in the commune Cazasu:

- It had a constant development in time, mainly in two big periods, before the year 1950 and after the year 1990; this was also doubled by a relatively constant evolution of the living area, but mainly after the year 2000.
- It is still dominated by constructions made from traditional materials (half-timber, adobe – 62.7% of total); however, at the same time, a strong transition tendency

towards the use of modern materials has been manifested, mainly in the period after 1990 (81.4% of the houses built after the year 2000 are made from bricks).

- It is strongly influenced by the peri-urban character of the commune, this being in the vicinity of Brăila municipality and of the main national and international transport corridors in the region, and by the constant flows between the urban and rural areas.

b) Annex constructions at the level of households. Another important category of constructions in the commune Cazasu, besides the buildings with housing destination, is represented by the annex constructions, with the functional role to support the crop or livestock production activities (storage and conditioning of products, animal shelter and care, protection of agricultural machinery and implements), as well as other economic activities on the household.

In the commune Cazasu, the most numerous annex constructions are represented by those used for crop and livestock production, i.e. animal raising and storage of products; out of total households, almost 40% own stables for animals – with an average area of 31.4 m^2; about 25% of households own annex constructions of storehouse/granary type, with an average area of 24.5 m^2 (Table 22).

Table 22
Annex constructions, Cazasu

Annex constructions –type	**% of total households**	**Average area - m^2**
Stables	39.8	31.4
Barns	10.5	13.5
Storehouses /granaries	24.9	24.5
Haylofts	2.5	17.1
Remises/Sheds	11.9	22.4
Garages	10.3	22.9
Other annexes	6.5	37.4

Source: Authors' processing based on SPSS database, Agricultural Register 2010–2014, commune Cazasu, Brăila county, October 2016.

These add to the constructions of remises/sheds type – 11.9% of households, as well as barns – on 10.5% of households. The picture is completed by the presence of the constructions representing an element of modernity for the rural households, namely garages, which are found on 10.3% of households – with an average size of 22.9 m^2.

We can also notice the presence of some other constructions on the rural households, many of these dedicated to economic activities – 6.5% of households, among which we find: buildings with industrial destination, hall, puffed corn mill, greenhouse for vegetables and commercial area.

From the point of view of household structure by size of annex constructions for crop and livestock production, we can notice the prevalence of the small-sized

buildings, which can accommodate small-scale agricultural activities, for the production of products for the household members' consumption.

4. CONCLUSIONS

The land and economic patterns are specific for a peri-urban community, engaged in a system of influences and possibilities of complex social expression. The demographic processes are determinative in the construction of the types of behaviour and economic attitudes and mainly in the land resource management. The occupation modality of the area inside the locality is a reflex of macrosociety and of economic policies in particular.

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ANNEX 1. THE LEGAL REGIME OF OWNERSHIP

The main distinction of ownership forms is by the legal regime, where we have two forms: the public ownership right and the private ownership right. These two forms of ownership right are stated in Art. 135 point 2 of the Constitution, according to which: *Ownership is public or private"*.

The public ownership right pertains to the state or to the administrative territorial units, upon the goods which, according to the law or by their nature, are of public use or interest. (Art 1, Law no. 213 of November 17, 1998 on the public ownership and its legal regime, Romania's Official Gazette no. 448/November 24, 1998). *The public ownership right is the ownership right which pertains exclusively to the state and to the administrative-territorial units upon the goods that are part of the public domain and the prerogative of which are exercised under public right regime, this one being inalienable, imprescriptible and intangible.*

LIST of certain goods that are in the public domain of the State and of the administrative-territorial units:

I. ***The public domain of the State*** consists of the following goods: the subsoil riches of any kind, under the form of ore deposits; the air space; the surface waters, with their minor beds, the shores and lake basins, the ground waters, the inland marine waters, the sea cliff and beach, with their natural riches and with their usable energy potential, the territorial sea and the bottom of sea waters, the inland waterways; the forests and land for afforestation, the land serving the forestry production or administration needs, the ponds, the rivulet beds, as well as the non-productive land areas included in the forestry planning schemes, which are part of the national forestry fund and are not into private ownership; the land areas that belonged to the public domain of the state before March 6, 1945; the land areas obtained as a result of damming, drainage and soil erosion control works; the land areas of the scientific research institutes and stations and of the agricultural and forestry education units, used for research and production of seeds and seedlings from the biological categories and breeding animals; the national parks; natural reserves and natural monuments; the natural heritage of the Danube Delta Biosphere Reserve; the natural resources of the economic zone and of the continental plateau, together with the continental plateau; the railroad infrastructure, including the tunnels; the underground tunnels and boxes, as well as the related installations; the national roads – highways, express roads, main and secondary European national roads; the navigable channels, the channel basins, the hydrotechnical constructions related to the channels, the floodgates, the defense and consolidations of banks and bevels, the safety zones on the channel banks, the access ways and the territories on which they are made; the transport networks of the electric power; frequency specters and telecommunication transport and distribution networks; the main irrigation channels and distribution networks with

the related outlets; the oil transport pipelines, for petroleum and natural gas products; the accumulation lakes and their dams, in the case when the electric power production activity is connected to the national energy system, or lake installments to attenuate the flood waves; embankments against flooding; regularization works on water courses; hydro-technical cantons, hydrological, weather, water quality stations; civil and military sea and river ports, the land on which these are located, embankments, berths, piers and other hydro-technical constructions for ship mooring and for other activities in the civil navigation, basins, aquators and access channels, technological roads in ports, historical monuments in the ports, quays and pitchings situated on the banks of water ways, outside the portuary precincts used for navigation activities; the land exclusively used for military training; frontier pickets and the country's defense fortifications; take-off and landing strips, runways and boarding and disembarking platforms and the land on which they are located; the statues and monuments declared of national interest; the historical and archeological sites, the museums, the art collections that were declared of national public interest; the land areas and buildings where the following institutions carry out their activities: the Parliament, the Presidency, the Government, ministries and other specialized bodies of the central public administration and the public institutions subordinated to them; the courts of instance and the law courts; units of the Ministry of National Defense and of the Ministry of Internal Affairs, of the public information services, as well as those of the General Directorate of Penitentiaries; decentralized public services of ministries and of other specialized bodies of the central public administration, as well as the prefectures, except for those acquired from own extra-budgetary incomes, which are under their private ownership.

II. ***The county public domain*** consists of the following goods: county roads; land and buildings on which the county council and its apparatus carries out its activity, as well as the public institutions of county interest such as: libraries, museums, county hospitals and other similar goods, if they have not been declared of national or local public interest; the water supply networks developed under zonal or microzonal system, as well as the water treatment stations with the related installations, constructions and land.

III. ***The local public domain*** of communes, towns and municipalities consists of the following goods: the communal roads, vicinal roads and streets; the public markets, the commercial markets, fairs and public parks as well as the leisure areas; the lakes and beaches that have not been declared of national or county public interest; the water supply, sewerage, heating, gas supply networks, wastewater treatment plants with related installations, constructions and land; land and buildings on which the Local Council and Town hall carry out their activity and where the public institutions of local interest carry out their activity, namely

theatres, libraries, museums, hospitals, clinics and other similar institutions; the social homes; the statues and monuments, if they have not been declared of national public interest; the riches of any nature of the subsoil, under ore deposit form, if they have not been declared of national public interest; the land areas with forestry destination, if they are not part of the private domain of the state and if they are not into the ownership of private law physical or legal entities; the town and communal graveyards. (Annex to Law no. 213 of November 17, 1998 on the public property and its juridical regime, Romania's Official Gazette no. 448/ November 24, 1998)

The private domain of the State or of the territorial-administrative units consists of goods under their ownership, which are not part of the public domain. The State or the territorial-administrative units have the private ownership right on these goods (Art.4, Law no. 213 of November 17, 1998 on the public ownership and its juridical regime, Romania's Official Gazette no. 448/November 24, 1998). All the goods of private use or interest belonging to natural persons, legal entities of private law or public law are object of private ownership, including the goods that constitute the private domain of the State and of the territorial-administrative units. (The New Civil Code – updated in 2016 – Law 287/2009)

The private ownership is the right of the entitled person to own, use and dispose of a good in an exclusive way, absolutely and perpetuously, in the limits established by the law (Art.555, section 1 – Contents, extent and extinction of the right to private ownership, the New Updated Civil Code, 2016, Law 287/2009).