

STRUCTURE DYNAMICS OF FARMING LAND USE IN THE DESNĂȚUI PLAIN

DINAMICA STRUCTURII UTILIZĂRII TERENURILOR AGRICOLE ÎN CÂMPIA DESNĂȚUIULUI

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Abstract: The changes made in the structure of the agricultural land use within the Desnățui Plain are caused, on one hand by the population growth (which determined an increased request for agricultural products for own consume, for various taxes paid to the land owners or for trade), and on the other hand, by the official agricultural policies (the reforms issued in 1864, 1921, 1945), which influenced the type of property and exploitation of the agricultural lands. In order to put an emphasis on the changes occurred in the structure of the farming land use in the Desnățui Plain, both before and after the communism fall, there were taken as reference years: the year 1970, when the political system was thriving, the year 1989, which led to the end of the communist regime in Romania and the beginning of a new stage in the Romanian agriculture (privatization) and 2009, the year for which the most recent data have been gathered.

Key-words: *the Desnățui Plain, arable land, pastures and grasslands, grape vines and orchards, agricultural reforms*

Cuvinte cheie: *Câmpia Desnățuiului, teren arabil, pășuni și fânețe, vii și livezi, reforme agrare*

INTRODUCTION

The Desnățui Plain, a subunit of the Romanian Plain, has represented since the oldest times a corny farming space. Its main farming functionality has been determined by the natural geographic factors, having available a flat relief, with low altitudes (35 – 160 m), which decrease by steps from the North to the South, temperatures favourable to cereals maturation, fertile soils, chernozem, rich in humus and a uniformly arranged hydrographical network (the Danube River in the South, the Drincea River in the West, the Jiu in the East and the rivers Balasan, Desnățui and its tributary stream, Baboia, in the central part) which can be used for flooding, but currently insufficiently exploited nowadays.

The history of agriculture in the Desnățui Plain

Over the course of time, a series of events hall-marked on the farming lands structure in the Desnățui Plain.

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In the Antiquity age, pastures had a large expansion in the Danube Water Meadows and its tributary streams, being capitalised in the process of transhumance of the flocks of sheep which headed from the Sub-Carpathian and mountains regions of Gorj towards the South.

Between the IVth century and the Xth century, the economic life in the Desnățui Plain was affected by the migration of the nomad peoples.

For the feudal period, modifications of the farming lands were noticed in cartographic documents such as the Map of the Austrian officers Schwantz (1722) and Specht (1790).

The XIXth century reveals the passage from feudalism to capitalism by being practiced an extensive agriculture. New cartographic works (the Russian Map in 1835 and the Szatmari Map in 1856) notice the spread of the ploughable surfaces as result of the processes of steppes soils breaking up and woods clearing. These modifications in the farming lands structure represent a consequence of the Peace Treaty of Adrianopole (1829) by which it is approved the free sailing on the Danube and the cereals trade. The Danubian Scaffolding System grew and cities went through a thriving process. The whole territory of the Desnățui Plain went through a period of boom as result of the intense trade activity on the Danube with rich farming crops prospected for on the European markets.

The agrarian reform in the year 1864 meant to settle the peasantry issue fundamentally changed the assignment manner of the agrarian estate in the Desnățui Plain before the First World War. As result of its application, a part of the farming lands which belonged to the state, churches and noblemen's property became a good belonging to peasants. Approximately 13548 inhabitants in the Desnățui Plain were made proprietors, the historical documents specifying as follows: "Through the rural reform in 1864, on the Afumați Estate, the proprietorship of the brothers Teodor and Paul T. Ioța, there were made proprietors 32 headmost socmen (352 acres), 56 middle peasants (436.8 acres) and 3 poor peasants (13.22 acres), receiving overall 802 acres and 5 rods. Also, 10 families received a house and garden lot, each family 498 stj.p." (Avram et al., 2004, p. 12), and such examples can go on. After many years in which peasants could not take profit of their own work, out of the wish to expand their farming land, their main food source, took negative actions on the woods in their possession.

On the First World War from the beginning of the XXth century, the agriculture in the Desnățui Plain received a tough blow. On July 17th 1921, three years after its ending, a new agrarian reform took place with the purpose of redoing the Romanian agriculture. New changes occur in the agrarian property structure. Great landed properties are cancelled as well as the large farming property, Romania being thus turned into a state with an agrarian economy predominantly rural.

Pursuant to Art. 78 of the Official Journal of July 17th 1921, the expropriated land was sold to those having this right as follows:

1. Carpet knights in the war between 1916 and 1919;
2. Carpet knights in the campaign in 1913;
3. War widows for the children's best interest;

4. Small farmers with no land in their possession;
5. Farmers holding estates smaller than 5 ha;
6. War orphans.

In the Desnățui Plain around 5734 persons were made proprietors. As a consequence of applying the agrarian reform in the year 1921, the cultivated surface extended. There were performed actions to set sands in the Desnățui Plain through acacia and grape vine plantations. Over the period 1925-1930 there were built the overflow dam between Ghidici-Rast-Bistreț.

But the most important changes occurred over the communist period. The agrarian reform from March 23rd 1945, adopted by Petru Groza Government of the Communist Party, replaced the large private property with the small peasant's property. Through this agrarian reform it was pursued to enlarge farming surfaces of the existing peasant farmsteads which had less than 5 ha and creation of new individual peasant farmsteads for the farm labourers with no land. In order to be assigned to the peasants, the goods of the wealthy people were passed first into the state's possession. Expropriation mainly aimed at:

- „- farming lands and properties of any kind belonging to the German and Romanian citizens, either natural persons or legal entities, of German nationality who had collaborated with the Nazi Germany;
- lands and other properties of the war criminals and of those to be blamed for the country disaster;
- lands of those who were refugees in countries with which Romania was fighting a war or were refugees abroad after the date of August 23rd 1944;
- lands and all farming goods of absentees;
- lands of those who over the past seven consecutive years had not cultivated their lands under their own supervision, except plots up to 10 ha etc.”²

As a result of applying this reform, over 3840 persons were made proprietors in the Desnățui Plain.

Subsequently, according to historians' opinion this reform proved to be only a strategy to gather votes from the peasantry which prevailed from the numerical perspective, for communists, on the elections which were to be organised, since over the period 1949–1962, PCR (The Romanian Communist Party) developed the collectivization process, similar to the one in the USSR, which consisted of the seizure of private farming properties and their merging to farmsstead administered by the state. Tough methods were applied against peasants who objected, turning to punishments, deportations, reclusion and seizure of the whole fortune. In some dwellings of the former proprietors there were set up head offices of IAS-s, GAC-s or police stations.

According to the new agrarian policy, in the Desnățui Plain there were set up Co-operative Farms (CAP), originally called GAC (Collective Farms). Collectivization was achieved in several stages. On June 08th 1949 in Galicea Mare

² Law no. 187 of March 23rd 1945, regarding the Agrarian Reform, Chap. 2, Art. 3.

Village the CAP called “Work Manumission” was set up. A series of such forms of partnership for the purposes of exploiting farming lands required by the communist regime gradually developed in the other communes as well. In the year 1962 the Desnățui Plain was entirely collectivised, existing over 33 CAP-s.

Over the period 1950-1975 there was achieved an expansion of the farming surface, the unproductive lands being also included in the farming use, such as the floodable lands in the Danube Water Meadows (through the redoing of dams affected by floods in 1937, 1942) or the sandy lands (through planting appropriate crops such as the grape vine, tobacco, rye, melons and vegetables). The lands in the Desnățui Plain became subordinated to the state’s economic interests, going through significant changes for the purpose of enhancing agricultural productions. Over the period 1969-1971 Calafat – Băilești flooding system was achieved, and in the year 1979 Nedeia – Măceșu flooding system was made operational, both of them supplied with Danube water.

METHODOLOGY

In order to put an emphasis on the changes occurred in the structure of the farming land use in the Desnățui Plain, both before and after the communism fall, there were taken as reference years: the year 1970, when the political system was thriving, the year 1989, which led to the end of the communist regime in Romania and the beginning of a new stage in the Romanian agriculture (privatization) and 2009, the year for which the most recent data have been gathered.

Statistic data have been used; they were picked up from the locality chart, for each commune in the Desnățui Plain, and they have been processed by means of mathematical formulas and construed based on diagrams and maps.

DISCUSSIONS

In the year 1970, at the plain level, the farming surface summed up around 283817 ha. In the structure of the farming land use it can be noticed the ploughable land prevalence (Fig. 1), followed by the surfaces occupied by pastures and grass lands (6,9%), grape vines and vinicultural farms (4,1%). Small surfaces included the fruit growing orchards and farms (0,5%).

In the year 1989, the farming surface summed up 292807 ha, 8990 ha more than in the year 1970. As far as the structure of the farming lands use manner, it is still the farming land the one prevailing as weight, followed by pastures and grass lands (9,4%), vineyards and vinicultural farms (2,3%) and orchards and pomicultural farms (1,0%). The large weight of farming lands is greatly due to the natural geographic conditions, represented by the flat relief with low altitudes, fertile soils, with a high production capacity and the favourable climate.

Although the weight of the ploughable lands as compared with the overall farming lands was smaller in the year 1989 as compared to the year 1970, the ploughable surfaces were extended, as result of the increase of the cereals and vegetables required amount, determined by the increase of the number of inhabitants of the plain, especially of people in the urban environment.

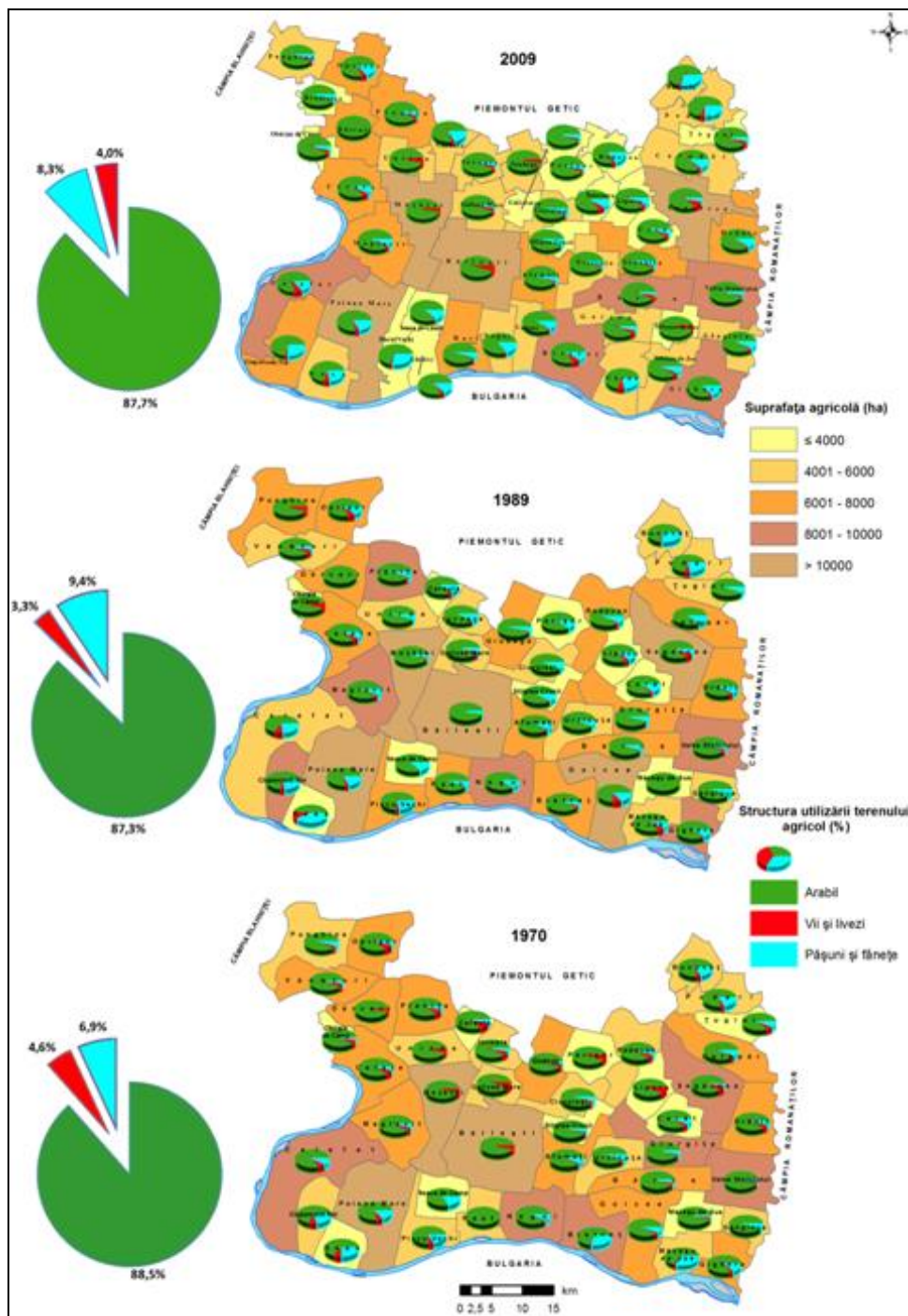


Fig. 1. Structure of the farming land use in the Desnățui Plain
 Source: The Regional Direction of Statistics Dolj, processed data

Over this period, 1970-1989, in the Desnățui Plain, as well as all over the country, it was laid emphasis on an intensive agriculture.

In the year 2009, the farming surface in the Desnățui Plain summed up around 288095 ha, 4712 ha less as compared with the year 1989, over a 20 years' period from the revolution which hall-marked the communism fall, period in which a series of transformations occurred in the Romanian agriculture, with implications on the structure of the farming lands in the Desnățui Plain.

Since agriculture is a primary branch of the national economy, the state has tried to revigorate this sector by granting subventions in order to support the farming producers in purchasing tractors, farming machineries, outfits, equipments, installations, fertilisers and to stimulate all that for the purposes of achieving a quantitative increase but also a qualitative one of both vegetal and animal production. So as to better emphasise the changes occurred in the structure of the farming lands use in the Desnățui Plain, there was made an analysis of the main classes of farming lands, taking the same reference years (1970, 1989, 2009).

a) The arable surface

It represents the main use category of the farming lands in the Desnățui Plain, holding the greatest weight both before the year 1989 and after this year, with small fluctuations (Table no. 1).

Table no. 1. Changes in the agricultural land use structure in the Desnățui Plain

U.A.T.	Agricultural Surface (ha)			From which:								
	Years			Arable land (%)			Pastures and grasslands (%)			Vineyards and orchards (%)		
	1970	1989	2009	1970	1989	2009	1970	1989	2009	1970	1989	2009
Afumați	6524	6672	6431	90.1	90.8	94.0	7.9	8.1	4.3	2.0	1.0	1.7
Bârca	7937	7115	8348	93.8	93.0	93.6	3.2	5.7	1.6	3.0	1.3	4.8
Bistreț	8016	7097	8987	69.8	93.2	81.8	28.4	3.8	10.0	1.9	2.9	8.2
Bucovăț	4435	4665	4661	77.4	70.6	68.3	17.1	27.7	29.2	5.5	1.7	2.4
Braniștea*			3086			94.2			4.7			1.1
Calopăr	7632	6052	5929	89.1	86.2	84.1	7.5	12.6	12.3	3.4	1.2	3.6
Caraula	3375	3339	5552	85.3	85.1	79.3	3.7	11.3	17.1	11.0	3.6	3.5
Catane*			4025			87.9			10.8			1.3
Cârna*			5559			70.5			21.5			8.0
Cerăt	3597	3645	3362	87.8	84.8	91.6	7.5	12.4	4.6	4.7	2.8	3.7
Cetate	7307	7521	7078	89.2	86.9	86.4	3.9	7.6	7.8	6.8	5.6	5.9
Cioroiși	4274	4235	4267	91.2	92.4	92.8	5.4	7.1	4.9	3.4	0.5	2.4
Ciupercenii Noi	5747	8957	6815	70.0	72.5	72.1	20.9	22.0	25.1	9.1	5.5	2.8
Desa	3357	3925	4303	66.3	49.1	70.7	24.2	41.5	21.6	9.6	9.4	7.7
Dârvari	6912	6568	6542	98.3	99.1	99.1	0.0	0.3	0.0	1.7	0.5	0.9
Drănic	6080	6589	6462	90.6	87.6	88.1	4.0	9.0	10.4	5.3	3.4	1.5
Galicea Mare	5459	5774	5472	92.9	91.8	93.7	0.9	4.7	2.2	6.2	3.5	4.2
Galiciuica*			2356			94.4			3.1			2.5
Gângiova	4915	4973	5067	94.3	91.2	89.1	4.9	8.0	8.8	0.9	0.8	2.1
Ghidici*			2840			83.5			12.3			4.2
Gighera	6476	9355	8823	83.0	88.0	83.4	12.9	10.7	13.7	4.1	1.3	2.9
Giubega	6992	6420	4973	93.7	94.4	98.3	1.5	4.5	0.0	4.8	1.1	1.7
Giurgiuța	8091	6625	6671	94.2	93.1	93.8	3.8	5.9	4.3	2.0	1.0	1.9
Goicea	7629	11654	5368	89.7	74.0	92.0	7.6	15.2	3.3	2.7	10.8	4.7

Izvoare	4076	4270	4061	90.3	89.5	94.0	3.0	9.2	2.6	6.7	1.3	3.4
Întorsura*			2962			84.9			9.1			5.9
Lipovu	3460	3519	3551	90.3	84.1	89.1	1.0	10.9	6.9	8.8	4.9	4.0
Maglavit	7330	8071	7851	90.8	90.1	89.9	4.3	7.1	7.2	5.0	2.7	2.9
Măceșu de Jos	5339	4914	4700	65.4	85.4	88.5	32.3	7.7	7.1	2.3	6.9	4.4
Măceșu de Sus	3285	3232	3388	95.8	99.1	97.9	1.2	0.0	0.0	3.0	0.9	2.1
Moțâței	11760	11048	12077	97.1	96.4	97.7	0.2	2.4	0.0	2.8	1.2	2.3
Negoi	8261	8394	4384	90.6	89.6	83.1	7.9	9.4	15.7	1.6	1.0	1.2
Obârșia de Câmp	3115	3087	2907	92.5	94.0	92.3	1.6	0.6	3.9	5.9	5.4	3.9
Oprișor	6070	6210	6363	87.2	80.2	80.2	3.6	11.4	13.6	9.2	8.5	6.2
Perișor	3532	3582	3557	92.8	89.1	94.0	0.9	10.1	3.0	6.3	0.8	3.0
Piscu Vechi	5416	6158	2579	75.4	72.9	69.2	17.8	22.5	28.7	6.7	4.6	2.2
Plenița	7677	8096	7566	89.2	91.7	93.0	3.2	6.4	3.1	7.6	2.0	3.9
Podari	5285	5973	5537	77.3	71.1	70.0	17.6	21.8	24.6	5.1	7.0	5.4
Poiana Mare	11090	10664	11007	77.6	77.9	77.0	14.8	17.9	17.6	7.6	4.2	5.3
Punghina	5964	6032	5464	90.7	95.5	92.8	5.7	0.4	4.3	3.6	4.1	3.0
Radovan	4518	6118	2897	90.4	88.5	80.1	4.1	8.6	16.4	5.5	2.8	3.6
Rast	5856	6228	6400	98.6	92.2	92.2	0.9	6.7	5.9	0.5	1.1	1.9
Seaca de Câmp	3107	3223	3293	81.6	84.9	85.2	17.6	14.5	13.2	0.8	0.6	1.6
Siliștea Crucii	3727	3355	3242	95.1	89.2	93.3	2.9	9.6	5.7	2.0	1.3	1.0
Țuglui	2926	5730	2953	86.2	92.6	91.5	7.5	6.7	3.8	6.3	0.7	4.7
Unirea	4512	4689	4455	95.9	94.0	95.7	0.1	5.4	0.0	4.1	0.6	4.3
Urzicuța	4087	5530	5614	91.6	92.8	94.8	7.0	6.9	3.4	1.4	0.3	1.8
Valea Stanciului	9845	8407	9595	96.1	93.2	95.3	1.3	4.0	2.5	2.6	2.8	2.1
Băilești	14625	13031	14267	95.7	97.2	95.2	0.1	2.0	0.2	4.3	0.8	4.6
Segarcea	9442	11359	11143	90.1	88.3	88.1	1.3	4.3	2.7	8.6	7.4	9.1
Calafat	8584	4807	8864	83.7	66.8	75.5	8.6	22.5	13.5	7.6	10.7	11.0
Vânători	6173	5899		92.5	92.0		2.2	2.8		5.3	5.3	
Total	283817	283817	292807	88.5	87.3	87.7	6.9	9.3	8.3	4.6	3.4	4.0

* Communes settled in 2004 by Law 84/2004 on administrative reorganization of the Romanian Territory.

Source: The Regional Direction of Statistics Dolj, processed data

The period 1970 – 1989 is characterised through the expansion of the ploughable surfaces. A cause of this fact is the introduction into the farming use of the unproductive lands from the Danube and the Jiu Water Meadows, through achieving works of landed improvements (damming in, drainage).

It was laid emphasis on the agriculture mechanisation and chemical processing; in this regard, since the year 1961, the Chemical Production Facility in Craiova City has been performing its activity and producing chemical fertilisers.

Also, industrial centres have been developed in order to capitalise and commercialise farming products. Thus, in Calafat town in the 1989 there was a tinned goods factory, built in the year 1967, one of the greatest factories of fruit and vegetables processing in the country which produced annually up to 20000 tons of tinned vegetables, between 6000 and 8000 tons of tomatoes paste, 400 tons of tomato juice and 1500 tons of tinned fruit. The vegetables were collected from the former CAP-s in the Dolj County, but also from the neighbouring counties, having into administration around 2000 ha of land cultivated with vegetables. In the factory 3500 people worked, while in

the field approximately 5000 people daily, the production being meant especially for the export (Olaru, 2009).

In Segarcea locality, in the year 1989 there were operational: the furfural (vegetal solvent used as insecticide) factory, the grinding and bread manufacture enterprise, a centre of farming machineries and tractors repairs and a centre of fruit and vegetables.

The decrease of the ploughable surface in the Desnățui Plain, after the year 1989 was caused by a series of factors such as: modification of the property manner upon lands through decollectivisation and the reintroduction of the private property, the passage to the market economy, the farming profitability decrease, the increase of the built-up surface, the deallocation of the flooding systems, of the Co-operative Farms (CAP) and of Farm Machineries Stations (SMA).

Each CAP member was brought into service (as per Decree 42/1990) a surface up to 5000 square meters of ploughable land or its farming equivalent. The Real Estate Laws (18/1991, 169/1997, 1/2000) of the period after 1989, for the purpose of the farming lands retrocession to the former proprietors or to their heirs entailed changes regarding the use and the size of the farming lands, leading to the Romanian agriculture management buy-out.

According to the Law 18/1991, they received a surface of land equivalent to 0.5–10 ha of ploughable land/family. All these changes had as effect the farming lands plotting, as result of the large number of proprietors, and the agriculture was turned into a subsistence one. The Law regarding farming lands rental and the one regarding the lands circulation entailed the creation of a farming lands market and the expansion of the property so as to achieve a high performance agriculture.

In the year 1970, 25 localities in the Desnățui Plain had ploughable surfaces between 5000 and 14000 ha. The most extended ploughable lands were held by the following localities: Băilești (13989 ha) and Moțăței (11416 ha), and the smallest ones the Desa Commune (2225 ha).

In the year 1989, the number of localities with ploughable surfaces between 5000 and 14000 ha reached 27, and in the year 2009 went below reaching 21, although the number of localities increased by 4, following enactment of Law 84/2004 regarding the administrative reorganisation of Romania's territory.

b) The surface occupied by orchards and pomicultural nursery gardens.

It is insignificant considering the fact that it does not represent a feature of the Desnățui Plain agriculture, pomiculture being a prevailing occupation in the Piedmont and Sub-Carpathian regions.

Thus, the pomicultural surfaces are reduced, only 3 administrative units having over 100 ha in the year 1970. Over the period 1970-1989 the pomicultural surface was expanded, considering the required amount of raw material in order to supply the tinned fruit factory in Calafat.

In the year 1989 eight administrative – territorial units had over 100 ha of pomicultural land.

Over the period 1989 – 2009, their number decreased reaching 5. After the year 1989, many of the factories which capitalised the farming products were deallocated, which entailed the production decrease and implicitly the cultivated surfaces. Such an

example is represented by the tinned fruit and vegetables factory in Calafat town, which ceased its activity in the year 1995.

c) The surface occupied by vineyards and viticultural nursery gardens

The natural geographic conditions in the Desnățui Plain, the Southern location, the luminosity, the sandy soils, all that favours the grape vine growth.

More important are the viticultural habitats in the southwestern part of the plain, where the grape vine is used to stabilise the sand dunes and habitats in the Northern part of the plain, Piedmont crossroads.

In the year 1970 the viticultural surface in the Desnățui Plain summed up 11669 ha, decreasing in the year 1989 and reaching 6632 ha, while in the year 2009 it should represent 9414 ha.

Changes in the interval 1970–1989 are due to the required expansion of the ploughable lands, to the injury of the viticultural ones. In the year 1989, the viticultural habitats of over 500 ha insularly appears in Segarcea locality (a viticultural centre famous all over the country, where a spirits factory was operational - «Vinalcoolul») and Oprișor locality, as compared with the year 1970 when the number of localities of over 500 ha of grape vine reached 6.

After the year 1989 an action was undertaken to redo the vineyards cleared in the previous period. To this process Law 18/1991 and Law 1/2000 regarding inhabitants' property reassigning contributed in. Thus, more and more persons in the urban environment, some of them unemployed as consequence of closing down industrial units migrated to the rural environment.

d) Surface occupied by pastures and grass lands

It went through significant increases over the period 1970–1989.

One of the factors which contributed in this process was the development of the zootechnical sector; in the year 1989, in Băilești town there was a Complex for pigs growth and fattening, built in the year 1965 and a Young Taurin Growth Complex set up in the year 1975.

In Segarcea town there was operational a factory of concentrated fodders.

In the interval 1989–2009 the surface occupied by pastures and grass lands decreased, more significant habitats with pastures and grass lands being located in the Southern, Western and Eastern extremities of the plain and less in the centre and Northern part of it.

In some localities in the Desnățui Plain, after the year 1989, the lands occupied by pastures and grass lands were expanded, as result of the political regime change and also of the manner of lands property. The agricultural potential which has Desnățui Plain generated early a major agricultural activity that must be supported by a sustainable agricultural system (Iordache, 2008, p. 228).

CONCLUSIONS

Following structure analysis of the farming lands use in the Desnățui Plain the following can be ascertained:

- ploughable, pomicultural surfaces expansion by pastures and grass lands in the injury of viticultural surfaces over the period 1970 – 1989;

- ploughable, pomicultural, pastures and grass lands surfaces decrease and increase of viticultural surfaces after the year 1989, as result of a distinct conjugation of the natural, political and economic factors.

Thus, we can mention droughts of the years 1992, 1993, 2000, 2001, 2003, occurred as consequence of the overall climate warming which discouraged the farming producers and determined them in seeking new solutions to fight against them, or we can mention again the political decrees in the farming field (agrarian reforms, Land Laws), as well as the economic condition of the country both before and after the communist period, with implications in the agriculture mechanisation and chemical processing or the existence of selling centres of farming products.

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