We inform you that on 10.06.2014, at 11:00 AM, in B8 amphitheater of the Faculty of Geography and Geology, University "Alexandru Ioan Cuza" from Iaşi will take place the public presentation the thesis entitled "Spatio-temporal evolution of agricultural land use from the outside area of carpathians from Neamt County after 1989" developed by PhD. Andreea Popa (married DIMITRIU) to obtain scientific title of Doctor in Geography.

Doctoral committee has the following members:

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We send you the abstract and invite you to attend at the public presentation

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INTRODUCTORY ASPECTS

End of the year 1989 marked in our country the beginning of the period of transition toward a market economy, bringing extensive changes, considering the form of ownership of agricultural land, passing from a centralized state structure to a structure dominated by pivate property and guided by the principles of the liberal market economy (capitalist). In this respect, in the course of time there has been created a new legislative framework, which proved to be tedious and time consuming, with big gaps regarding the rules for the application of laws.

Exaggerated parceling up of agricultural land has been one of the main causes of plant production decline, for a greater effectiveness productivity being necessary to establish associations and agricultural assosiations.

Old "agricultural associations" titled Agricultural Cooperatives(Assosiations) shall not have had too many elements that are common to the principles current association. In reality, interest and motivation for setting up individual Agricultural Cooperatives of Production and therefore, voluntary association for high-end production and higher productivity has not existed. In addition, many times, the disposal of land by private farm was not far from voluntary, being imposed by the use of coercive methods (arrests, expropriations, deportations, blackmail). After collectivization due to merging of land, as well as the effect of the development and modernization of certain agricultural activities, initially took place an increase of agricultural productions. In general terms, the life village has known a positive change, by improving the standard of living, by facilitating access to education, health, culture, by the construction of new ways of communication or by upgrading the pre-existing one.

Through a planned activity and by power investment concetration only in the hands of state-managed, it has succeeded an economic growth quite appreciably. However, the granting of a priority attention to the disadvantage industry agriculture, as well as the reduction of resources for modernisation of the agriculture sector and the rural development have led young people to urban areas, generating a disturbance of the workforce to territories.

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Immediately after 1989, economic entities in the agriculture sector were abolished by autodissolution. Utopia supported too long after 1989, that the owners bring their land as a member of an association vaguely legal defined, but also its starting point (after the phenomenon of crushing of agricultural land owned by the head and state farms), were one of the greatest errors of agricultural post-communist era reform .

Wrong land policies and laws adopted after 1989 have occurred through excessive parceling up of land and by default by inappropriate use of their direct implications in the outbreak of other harmful processes of farm activities: soil quality degradation, the fall in production and agricultural productivity, loss of internal market and traditional products, the reduction of agriculture to the economic development of overall, the decrease in agricultural products quality.

However, the enforcement of the law land has also had positive effects due to the fact that private property has expanded, communist cooperative structures have gone, ineffective, have diversified organizational structures and connections to market circuits. However, the uncorrelation of the law's land with the land market, is not provided with the ownership of land and access to appropriate technical means to make the agriculture works, stimulated the establishment of associations without legal personality.

Starting from the year 1993 until 1998 it has to be noted a slight trend toward concentration of the land in private households. Thus, of the total number of owner-occupiers, approximately 40 - 45% were not in close proximity of property, many of them being urban inhabitants planners, while other people living in other rural areas than those in which it was located the land.

Since most of the statistics are presented at the level of administrative unit we have been forced to make the cut area of study not only by physicogeographical criteria, but also on the basis of administrative limits, based on specialisation agricultural land from the point of view of how to use for each township. As we have said, for the purpose of demarcating as correctly the region of study, we must take into account the agricultural land reported to total

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surface area of the administrative unit, as well as specialisation agricultural land from the point of view of how to use it.

To determine better the area of study at the level of administrative unit, referring us to its surface area and the general area of agricultural land at the county level, were used the indices of economic specialisation, with applications in the most diverse areas. This category includes the location coefficient of specialisation, calculated - as regards agricultural land - according to the following formula:

$$Lq = \frac{\frac{S_{agricola_comuna}}{S_{totala_comuna}}}{\frac{S_{agricola_ju} \det}{S_{totala_ju} \det}}$$



Fig. 3

I.2. Agricultural land Organization before 1989

Between 1945 and 1949, the organization agricultural land has been based on agrarian reforms in socio-economic conditions for the recovery of the economy after the second World War. Thus, ranches lands have been excessively parcelated and divided to peasantry, by destroying feudal last remnants. Between the years 1949 and 1962, for a better organization and efficiency in the production of agricultural land, there were set up Agricultural State Enterprises and in March of the year 1949 starts the process of cooperativization. As a result, in April 1962, when the collectivization process official ended, the little farmer's property almost has gone, and the socialist state sector and cooperative held 96 % of arable plot of Romania.

I. 3. Organizing Agricultural Land after 1989

After 1989, all the legislative measures in agriculture, approved by the Romanian state has led to the emergence of major transformations in terms of form of ownership of farmland. Thus, the beginning of 1990 found the agricultural land in Romania found out, for the most part, to public property, and agricultural policy priority in Romania, at that time, has become earth's restoration by old owners.

The first step was made by the entry into force of Law no. 15/1990 on commercial companies, covered by its entering farms (CAP-uri), which have become commercial companies. After their conversion, they have been subjected to privatization, through a long-term and time consuming process.



data source: DJA Neamţ şi DJS Neamţ

Fig. 15

Shortly after initiating legislative action which affected farms, was launched the process of decollectivization, regarding farms (CAP-uri). But this process has not been a simple one, this one giving rise to many disputes, being marked by a series of amendments and downs, in such a way that it can be said that it is not completed. Beginning of decollectivization has been marked to the entry into force of Law no. 18/1991 or (Law Land Register), but this law was marked by a series of shortcomings and inaccuracies, which have braked desirable walking of agricultural reform.

Out of a desire to comply with the principle of equity as regards agricultural lands to former owners have been reached, as a matter of fact, to the creation of structural problems in Romania's agriculture, problems proven to be problematic . The restoration result was the excessive fragmentation of agricultural land, with negative effects on efficiency in agriculture, by subtracting production and productivity.

After laws application referred to above, areas of land in the possession of public and private domain of the state began to fall to the detriment private property up to the level of 2007, when they practically become non-existent.

Agricultural land restitution by religious cults starts only in the period 1996 to 1997, although there had been past attempts, but without any significantly result. In this chapter, one can talk about a refund in the real meaning of the word only after Law no 501/2002, as up to that date each restitution was issued by the emergency ordinance. After recovery agricultural land, churches and monasteries being exceeded from the economic point of view, they will choose technology lease or rental.

In the pre-accession period, Romania has received financial support from the European Union by three funds, also known as "programmes" -PHARE, SAPARD and ISPA - which attempted financial support in the process of aligning to European standards and to the Community legislation.

By Regulation (EC) No 1268/1999 of the Council on Community financial assistance intended for pre-accession measures for agriculture and rural development in the applicant countries of Central and Eastern Europe, in

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the pre-accession period, as amended by Regulation (EC) No 257/2004, shall be governed specific SAPARD program aspects (Special Accession Programme for Agriculture and Rural Development) in respect of the framework for community support for sustainable agriculture and sustainable rural development in the pre-accession period for Romania.

By SAPARD Agency reorganisation, following O. U. G. no. 13/2006, was born at the end of the year 2007 a new institution - APDRP (the Agency for

Payments and Rural Development and Fishery), which manages the European Guidance Section for Agricultural Rural Development (FEADR), providing technical and financial implementation of it.

Unfortunately, Romania's capacity to absorb EU funds has proved to be considerably lower as compared to other states. Over time failure mistakes to comply with or incorrect application of relevant legislation in this field has led to an inability to obtain a financing package satisfactory or even, sometimes, to the financial refund support received.

Under the provisions of the Law No 1/2004 with subsequent amendments and additions, there was set up APIA (Agency of Payments and Intervention for Agriculture), which operates under the authority of the Ministry of Agriculture, Forests and Rural Development, with the main activity ensuring conduct of financial transactions relating to the management of subsidies allocated to cultivated hectare. Starting from the year 2009, the amount of the subsidy per hectare has increased in our country, amounting to 115,9 euros in 2003 and 131,46 euros in 2010.

In larger context, it should be noted that, after 1989, on the background of a legislation defective and inefficient economic measures, the inflation romanian rate increases constantly and sometimes explosive, with multiple socio-economic effects, including to the value of crop production.

In fact, the increase value of production plants is not due to a positive evolutions of physical production or agricultural success policies, but exaggerated growth of prices. Beginning in the 90s, against the background of a macroeconomic relaxed policy and a financial indiscipline, has been a

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continuous devaluation of the romanian currency, and prices have started to rise exaggerated (fig. 16).



data source: DJA Neamt și DJS Neamt

Fig. 16 - Evoluţia inflaţiei şi a valorii producţiei vegetale din judeţul Neamţ (1991 -2009)

In response to restrictive monetary policy and at a reduced rate of depreciation of the romanian currency, starting from the year 1998 inflation stabilizes, reaching 0.7 percent in 2004 and 0.4 percent a year before accession.

II. 2.2. Agricultural Capital

The capital constitutes one of the main factors of production, being regarded as a category of the goods produced and used for purposes of producing other goods, representing also an important participant in the value and profit production.

For the renewal of productive capital, for an increase in used capital, for processing equipment, but also to the resumption of the production process, the farmer needs capital.





If we were to relate the number of harvesters to 100 ha arable land, it is noted that neither an administrative unit within the area of the study fails to reach the value of 1 to 100 ha, maximum values being encountered in Cordun (0.76 harvesters/ 100 ha arable land), Bucuresti-Faurei - (0.72), Tibucani (0.56), townships where agricultural holdings are predominant, especially the commercial companies with halved lands by leasing.

After 1989, we can notice a significant decline in the quantity of fertilizers used in agriculture, both natural and chemical, with a first decline at the level of 1991, effect of land restitution to former owners, who did not have financial support to invest in such products (Fig. 34 and Fig. 35).



Fig. 34

II.2.3. The workforce

The legacy left behind by the past, namely experienced people, specialists, as well as a weighted relatively low population occupied in agriculture (at least at the level of the others former communist states), has changed immediately after 1989. Law No.18/1991 through which the former owners have withdrawals receivable land, economic recession, as well as dismissals from industry, have led to an increase in the occupied population in agriculture, from 28.9 % of the total occupied population in 1991 to 34% in the year 1996, entering into clear contradiction with developments in economically developed countries.





Statistically, the aging population analysis occupied in agriculture can be done on the basis of the data supplied by Neamt county Direction of Agriculture, valid for the year 2010 (Fig. 38). Aging degree has been calculated as the ratio of elderly population (65 years and above) and the adult (14-64 years) engaged in agriculture.





From this point of view it must be noted that, for our area of study, demographic aging is rather advanced, approximately one in three people having an age of at least 65 years old (a value aging index of 0.47).

An additional element of analysis is minimal sustenance reality density, calculated by reference occupied population in agriculture to conventional surface (fig. 39). In this chapter, I have preferred taking into account only the family workers in their own households, the only ones who approached to the idea of traditional farmers.



Fig. 40

In the same range of indices that illustrates "human charge" that agricultural land supports we must take into account the agricultural pressure, by reporting occupied population in agriculture to 10 ha of agricultural land (fig. 40).

From this point of view, we can see that the values over 3.5 or even more, are superimposed over townships which either have limited territorial

agricultural land or have a more numerous population occupied in this field (Doljesti, Sabaoani, Cordun, Gheraiesti and Bozieni).

III. 1. Agricultural land structure in relation to the category of use

After the year 1989, Romanian state interest has mainly focused on a change agricultural structure land according to ownership form, through the implementation of land's law and less depending on the category of use. Extracarpathian area of Neamt county, do not differ too much from national context, post-revolutionary changes in respect of the category of use of agricultural land being scarce and small proportions. You can see a decrease in absolute and relative values of the areas occupied with orchards and vineyards to the detriment of grassland, but arable land and grassland remain approximately constant.



Fig. 48

III. 2. Dynamic agricultural land production

The evolution of agricultural land areas cultivated with cereals (Fig. 49, Figure 50) has been on a constant rise, immediately after 1989, as a result of agricultural restoration land, the population does not have adequate experience and economic possibility required cultivation of other plants.



Fig. 49



Fig. 50

After 2004 we saw a downward trend of the areas cultivated with cereals due to new economic measures taken by the Romanian Government, in conjunction with the conditions imposed by the strategy of pre-accession to the European Union, through which farmers were encouraged to grow plants. Average yield per hectare, for both the state sector, as well as for the private

sector too, oscillated over time between 1,700 kg/ha and 3,800 kg/ha, direct cause of good, dry or rainy years.

For compensation, new agricultural crops are becoming their own Neamt county - crop of sunflower, soya and rape case (Fig. 60, Fig. 61 and Fig. 62), all with enough considerable yields, especially for the private sector (for the state sector fluctuations being more extensive).



Fig. 60



Fig. 61



Fig. 62

CAP. IV - THE EFFECTS OF AGRARIAN REFORM ON THE DYNAMIC OF AGRICULTURAL LAND IN EXTRA - CARPATHIAN AREA OF NEAMT COUNTRY AFTER 1989

After 1989 the use of farmland has not changed too much. New owners have inherited the category of use of agricultural land and they have preserved it in the first three years of their possession.

At the level of 1991 the coefficient of location of agricultural land, had a high value within the area between Roman and Piatra Neamt, as well as to the north of Roznov city (fig. 67). At the opposite pole there are Petricani, Dumbrava Rosie townships and also the townships located to the east of Roman city where weight agricultural land didn't exceed 61 %.



Fig. 67

After three years from the date of accession, the surface area of agricultural extra-carpathian land of Neamt county begins to fall upon reaching 200,364 ha in the year 2012, the main being the increase in areas occupied by buildings.



Fig. 72

IV. 2. Changes in ownership of land areas and of the method of use of the goods after 1989

The year 1991 brought important changes as far as the form of ownership of agricultural land, by putting in the application of the law of the land and of the emergence of three types of ownership of agricultural land: *private domain of the state, public domain* and *private domain owned by individual households* and *those held by private companies*.





Changes in agriculture in Romania's post-revolutionary period were substantial and they went to the front row of the changing ownership of farmland. If originally such land have passed in the possession former owners or have remained in a different form or another into the ownership of the state, then the main element of novelty was, especially after the year 2000, the advance companies (Fig. 103).

CAP. V - STRATEGIES FOR THE DEVELOPMENT OF AGRICULTURE (PLANT SECTOR) IN NEAMT COUNTY AND THEIR EFFECTS ON THE DEVELOPMENT OF LAND AREAS AND THEIR USE

In the elaboration strategies for the development of vegetable sector in the agriculture area should be pursued more directions:

- the rational use of land areas;

- growth and efficient allocation of funds;

- the development professional ability of human resources;

- an increase in the levels of the technology and stimulate innovation;

- achieving the production structure in accordance with the agrarian potential;

- supporting organic farming.

Within the extracarpathian area of Neamt county, activities in the agricultural sector sometimes have a negative impact on the environment, especially on the ground. Soil erosion ranks first in relation to land degradation, through mindless motion of arable land, through the incorrectly application of a technology system. Compacted soil due to use of agricultural machinery and heavy pollution by excessive use of pesticides and fertilizers, incorrectly irrigation and drainage, associated with other improper practices, increase physical degradation of the soil and to emphasize environmental pollution.

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