

SUMMARY

In agriculture, as in any other branch of material production, the normal ongoing of production processes involves the mandatory presence, on one hand, of material resources, those being the means of production - as work means and labor objects, and on the other hand, human resources, represented by the required labor force, both for agricultural works, and for technical guidance, organization, leadership and management of all resources existing in the agricultural units. The essential particularity of the Romanian agriculture is that now, after Romania had joined the European Union, there is a poor quality of life of the labor-force in agriculture and especially a low level of its qualification.

- Starting from these considerations we have proposed the creation of a study on the improvement of human resource management in Iasi county's agriculture taking into account all of theories, issues, interdependencies and constraints that characterize this important factor for achieving agricultural production, namely, the human resource.

The PhD thesis entitled "**Studies on improving human resources in Iasi County's agriculture**", has proposed the following objectives:

- conducting a bibliography study on the current state of research on improving human resources in agriculture;
- establishing procedures and methods for the analysis of human resources in agriculture and the choice of indicators and specific indexes;
- creating a diagnostic study on human resources in Iasi County's agriculture viewed as a whole and customized, in a case study of the commune Plugari of Iasi County;
- carrying out a SWOT analysis, at county and communal level in order to identify "strengths" and "opportunities" , "weaknesses" and "threats" of these administrative units, representing influential factors for the quality of human resources;

- identifying strategies to improve human resources and their management.

In the first part of the work there is carried out a review of data from specialty literature relating both to human resources and management, and developments and trends in perfecting them.

The portion of data analysis from the literature is followed by a chapter devoted to **material and methods of analysis**. It was considered appropriate to establish a strong and consistent methodology for the analysis of human resources in agriculture and designing strategies to ensure improvement, taking into account their status, characteristics and socio-economic potential of rural areas. Synthetic indicators and indexes have been established, with which one can quantify the improvement level of human resources in line with the economic potential of localities.

For the study of human resources in Iasi County's agriculture there were used three specific research methods:

1. Dynamic economic analysis, deductive and quantitative;
2. SWOT analysis;
3. Economic survey or participatory research that involves gathering information from the territory using as research techniques the "questionnaire" and "interview".

The second part of the thesis, devoted to our own contributions, includes collecting, sorting, analyzing of all data that characterizes the Iasi County and a representative commune, Plugari. They are referring specifically to the customization of human resources, which have been synthesized, analyzed using the research methodology specific to the three types of tests indicated above, but also to developing the basic strategies of development and improvement of human resources in county's agriculture that best matched the realities of this space, and also being to the means of national and regional development in coming years.

The analysis of human resources in the county of Iasi has been going through several stages, namely:

- Studying the potential of human resources of the county (in which we analyzed the evolution of the population in the two areas, urban and rural, within a certain time);
- Human resource structure (by age and sex group, by employment degree, by level of qualification)
- SWOT analysis (strengths, weaknesses, opportunities and risks) at county level and representative commune.

The Iasi County population at 2006 January 1st represented 3.8% of the total population of Romania, the county occupying 3rd place after Bucharest and Prahova County in

terms of inhabitants. Of the total, 429,387 people lived in the rural part of the county, being first among counties in the country on this respect

Population averages show that from 1 January 1997 more than half of the county population was concentrated in urban areas. In 2007, ten years after, these shares were reversed, the majority of the population living in rural areas.

The structure of human resources by age categories in the period 1995-2007 reveals an acceleration in demographical aging, manifested by the decrease in the share of young people (0-14 years) in the total population and the increase in the share of older population (60 years and older).

From the gender structure we can observe that women represent the largest share of population.

The structure of human resources in agriculture in terms of employment shows that the number of people employed in the Iasi county economy decreased in total nominal value, being 52.7 thousand people lower in 2006 compared with 1992, reaching its lowest of the period under review this year. The number of people employed in agriculture has fallen while the field of commerce has registered significant increases. The largest number of employees is found in the industry (74,200), followed by education (18,900 employees) and health (15,800 employees). Small producers are predominant in agriculture.

School-age children (6-19 years) represent a quarter of the Iasi County population. Education and professional training is provided by a network of school units - the second largest in the country, consisting of:

- 353 units of state education, 21 units of private education, of which 10 kindergartens, 3 primary schools, a gymnasium, 3 high schools, 8 post high school, a school of Arts and Crafts, 3 units with alternative education (Waldorf and Step by Step)

In rural areas there are 2 high schools, 5 school groups, 52 schools of Arts and Crafts, 139 schools and kindergartens.

In all the years analyzed, **the unemployment rate** among men was 2-3 times lower than that of women, the biggest gap recorded in 2000.

SWOT analysis of human resources in Iasi County's agriculture indicates the following:

Strengths – The significant share of young people in the area, with positive natural growth, large number of educational establishments and pupils, the highest number of schools of arts and handicrafts covering a fifth of the national on this form of education; the existence of university centers in which research groups function (fourth of the nation-wide total), sufficient labor force, high agricultural potential in both the plant production and animal raising.

Weaknesses - high population employed in agriculture, the relatively low skills, high level of poverty in the region; high rate of unemployment in the region compared to the national average, the absence of redistribution of occupied population from agriculture towards industry and services, lack of suitable premises and facilities of education especially in vocational and apprenticeship schools to keep pace with the ever-changing needs of the labor market, the insufficient level of counseling centers assisting women and children subjected to domestic violence, lack of center that provide integrated advising services for people that are self-supporting.

Opportunities – Development of the Regional Action Plan for Vocational and Technical Education 2004-2011, the existence of the Regional Center for Continued Education for farmers, the North East Regional Consortium for the development of vocational and technical education – and technical academic and the possibility that the existing social infrastructure is upgraded and rehabilitated to serve as spaces for the development of integrated services destined to help disadvantaged categories.

Risks - migration of skilled labor force to other regions or to other countries; large number of people employed in large enterprises that through restructuring could exert pressure on the labor market, weak capacity of consulting firms in the region, increased crime rate because of the lack of education and appropriate usage of labor through programs of integration into the labor market, lack of motivational factors.

The next stage in the study undertaken was a **diagnostic study on human resources management in Iasi County's agriculture**, analyzing the following elements: human resources planning, recruitment, selection and improvement of human resources.

Human resource planning involves a series of activities: identification of professions and trades for which there is no qualified personnel; analysis of existing staff turnovers, determining staff needs based on existing available number of positions to be filled.

To achieve **the recruitment** process it was deemed necessary to respect certain principles.

- determining personnel requirements based on an inventory of needs, in the form of detailed descriptions of jobs;
- recruitment to be carried out by competent and impartial persons;
- discerning choice of the sources of recruitment;
- recruitments made based on a recruitment plan;
- correctly informing the interested persons on the requirements of the job opportunities;
- conceiving recruitment ads and texts that are visually striking;

Personnel selection and integration is based on four criteria:

- appropriate studies certified by diplomas;
- experience and length of service;
- previous employment;
- skills, knowledge, abilities and behavior of the person concerned.

Staff improvement is a planned program of quantitative and qualitative increase in the volume of skills, knowledge and abilities through learning, in order to achieve a higher level of performance in work.

Currently, informing and training is done by specialized institutions of the Ministry of Agriculture and Rural Development: ANCA - The National Agency for Agricultural Consulting; CEFIDEC - Center for Innovation and Development in the Carpathians, other public authorities, private suppliers and the Directorate of Training of the Producers. These institutions have organized a series of actions for people, especially in rural areas, which have consisted of:

- a) Qualification courses;
- b) Courses for further improvement of professional skills;
- c) Training courses;
- d) Courses to form teaching personnel;

At the County Office of Agricultural Resources Iasi, in the period 2006-2007 there were organized following training courses: beekeeper, farmer, livestock breeder, fruiter, mushroom grower, pisciculturist, vegetable gardener, tractor operator, viticulturist, floriculturist, agro tourism. The number of graduates from these courses has increased from 938 persons in 2006 to 1264 persons in 2007, which means that interest in the process of improving oneself in rural areas is very high.

In order to **improve its own staff**, OJCA Iasi has undertaken the following activities:

- Participation in the training for trainers' course regarding the marketing of producers' organizations - in the 12-16.03 and 18-22.06 2007 in Vatra-Dornei, organized by Inwent Germany.

- Participation in three seminars and symposiums on mechanization in agriculture and field demonstrations on the effectiveness of the use of modern machinery, European legislation on chemical fertilizers (28.03.2007 - USAMV Iasi Symposium - agricultural machinery for European agriculture; Țigănași - Companies Valtra + Gaspardo -- VRIAN project - chemical fertilizers); DADR Iasi – presentation from the MEWI company - Symposium "Agricultural machines according to European standards."

- Organizing experience exchanges between agricultural advising, public administration, education, private companies processing milk products, associations of producers of vegetables,

wine companies and foreign experts, in five communes of Iasi county (Costuleni, Raducaneni, Strunga, Cotnari , Tg. Frumos)

- Another institution interested in the training of people in rural areas, in addition to ANCA, is the National Agency for Employment. It has provided at national level for 2008, training courses to number of 18097 unemployed people in rural areas, representing 41% of the total number of unemployed to be included in vocational training.

For the last part of the paper we conducted **a case study on human resources in Plugari village, Iasi County**, which concluded in a questionnaire-based social inquiry.

The case study was conducted traversing several stages and included issues relating to:

- location and history of the commune;
- Analysis of the resources in the Plugari commune (analysis of natural resources, human resources, the infrastructure condition).

Plugari commune has a total area of 5502 km and consists of villages Borosoia, Onesti and Plugari (joint center), and is located 68 km from Iasi. The Plugari village is located on a terrace on the left of the Miletin brook.

The Road network is made up of village and municipal roads in total length of 16.67 km, in different technical states.

Analyzing the dynamics of the demographic structure of the Plugari commune, we can see that the largest share belongs to the Plugari village that owns 49.4%, followed by the Borosoia village with 43.41% and Onesti village with 7.19%.

Analyzing the structure of the age groups in the Plugari village we can observe a balance between the young and the elderly, both groups representing more than 48.0% of the total.

Education in the commune is carried out through four units of education: 2 kindergartens and two schools with primary and secondary education.

SWOT analysis of the village has pointed out the following:

Strengths:

- Very good quality agricultural land, labor force relative surplus numbers, not very aged; low pollution degree; good potential for investors in agriculture.

Weaknesses:

- High level of poverty in the region; the absence of redistribution of occupied population from agriculture to industry and services, poor agricultural structure (excessive division of agricultural land, the simple structure of agricultural production - corn and wheat); poor state of infrastructure elements, the lack of capital investment from own sources and from banks due to a lack of confidence in this sector, incomplete and not-functioning services market; shortage of adequate financing in rural areas; no association phenomenon on agricultural market segments,

and training groups of producers, low level of mechanization and maintenance of agricultural land, lack of non-agricultural activities; low level of training and qualification of human resources.

Opportunities:

- Development of projects for infrastructure financing, education and development of activities in non-agricultural sectors; potential occupational diversification (development of non-agricultural activities); establishing of organic farming, given that the majority of land is not affected by pollution; initiation of strategies for training programs corresponding to the real interests of beneficiaries.

Risks:

- Migration of skilled labor to other regions or to other countries; instability of weather regime, as a result of climate change, constantly degrading infrastructure.

Another part of the work included conducting a social survey in the Plugari village.

The social survey based on questionnaire aimed to highlight two issues, namely on one hand diagnosing the degree of training and retraining of the population of the commune and on the other hand, identifying with the people their need for refresher courses at village level. For public consultation, the interview was used as work method, a widely recognized standard method for data gathering. For this purpose we developed a questionnaire specifically for this study, which was applied to a representative sample of the community studied.

The results obtained can be summarized as follows:

- The vast majority of the subjects interviewed were aged between 40-60 years (50%) and over 60 years (18.8%). This reflects the demographic structure of the commune.

- With one exception, in the commune there were not organized training courses. Most people interviewed want to participate in such courses in order to obtain a new qualification;

- Training courses in the field of agriculture which the inhabitants would be interested in attending are: agriculture (43%), livestock breeding (27.9%), vegetable growing (14.2%), beekeeping (7.4%) and agricultural services (7.5%);

- The commune's people get most information through radio or television, newspapers and consulting provided by local authorities, the latter being regarded as the most effective way of information.

In the end of the analysis of this study there were developed a **set of strategies to improve human resources in Iasi County's agriculture:**

- *Granting financial support to young people that are willing to relocate in rural areas;*
- *The existence and development of a strong agricultural sector, both performance-wise and economically viable;*

- *Expanding crops for the production of bioenergetics products;*
- *Bringing distribution networks for agricultural raw materials close to the agricultural activity in the commune;*
- *Establishment of repair and maintenance services for the tractors and agricultural machines fleet;*
- *Attracting new investors to the agricultural sector;*
- *Promoting and processing organic agricultural products;*
- *Once the level of civilization in the commune has risen, more non-agricultural employment opportunities will appear and thus, new professional skills will be needed;*

With regard to increasing the skills level of the population we looked upon the following:

- *To include the entire school-aged population in education;*
- *Actions for the elimination of school drop-outs;*
- *Broadening the training and education possibilities through the emergence of new forms, in particular the continuous education and the non-agricultural schools;*
- *Improving the human resources management through national and European funded programs.*

Some of the results presented in the doctoral thesis have been stated at scientific events, published in magazines and specialized books.

Personal contributions contained in the doctoral thesis entitled "Studies on improving human resources in Iasi county agriculture" are the following:

- The use of combined analysis methodologies of human resources from agriculture which would corroborate the features and benefits of specific economic analysis, the SWOT analysis and participatory research;
- Collecting, synthesizing and computerized processing of economic, social or other data collected in Iasi County, needed for the analysis of human resources in Iasi County;
- Conducting an economic, dynamic, deductive and quantitative human resource analysis covering all the county of Iasi;
- Analysis of human resource management activities in the Iasi OJCA, regarding the planning, recruiting, selection and improvement of human resources;
- Designing and developing a questionnaire in order to obtain information directly from the source (Plugari commune) covering two directions: on one hand the skill and the retraining of the population in the commune and on the other, identifying with the local people the need for improvement courses at village level;

- Developing strategies to improve human resources in Iasi county agriculture that best matched the rural area realities;
- Development in the thesis of opinions and solutions regarding the improvement of human resource management practices.