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Lucian Blaga University of Sibiu
No.10, Victoriei Bd.
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Center for Economic Research
Lucian Blaga University of Sibiu
No.17, Calea Dumbrăvii Street
Postal Code 550324, Sibiu, Romania
Phone/Fax: +40 (269) 23.58.79

G.P.E. «Continent»
No.2, Dr. Ion Rațiu Street
Postal code 550012, Sibiu, România
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MANAGEMENT AND CONTROL SYSTEM FOR FUNDS TO ROMANIA POST ESTABLISHED – MEMBERSHIP

BOBOC Raluca

PhD student, Economic Studies Academy, Bucharest, Romania, bobocraluca@yahoo.com

Abstract: *In the administration and implementation of financial assistance granted to Romania by post-accession funds was up an institutional framework for coordination and management, called the generic system management and control of these funds. Bodies designated for strategic and financial planning, management, implementation and audit of post-accession funds to Romania are: management authorities, intermediate bodies (structures that management authority can delegate some of its powers), authorities for certification of payments and an audit authority. All these structures form a system, its functioning depends on the absorption of funds granted to Romania.*

Key words: the post-accession funds, management and control, management authority, audit authority

JEL classification: H83

1. Introduction

Management and control system established for strategic and financial planning, management, implementation and audit of post-accession funds to Romania comprises: managing authorities, intermediate bodies (structures that management authority can delegate some of its functions), authorities for certification of payments and an audit authority of these funds.

To achieve the expected results of social and economic development requires a high effort from all actors involved in strategic planning and financial management, implementation and audit of funds allocated to Romania after accession.

Absorption of EU funds granted depends on the ability to leverage the support received. In other words, although a country's needs are great, its ability to efficiently use financial assistance may be limited for various reasons (such as lack of trained staff, limited administrative capacity, lack of co-financing, planning, etc.). A limited absorption capacity will lead to failure to use available funds.

To achieve a high degree of absorption potential funding recipients should know more in time are the requirements, risks, pitfalls and thorny issues involved in implementing a project for the authorities, as the authors of projects should be more careful, since this stage of development and provision of indicators for evaluation of projects, on every detail that it can save unnecessary complications.

In this context a very important role of the Audit Authority, the only national authority to make public external audit in accordance with EU and national legislation, the pre-accession funds allocated to Romania by the European Union PHARE, ISPA and SAPARD funds structural and cohesion, the European Agricultural Guarantee Fund, European Fund for Agriculture and Rural Development, European Fisheries Fund and for funds to be granted post-accession period.

Management and control system evaluation aims to establish a hierarchy of its risk that, depending on tolerability, allows the most appropriate ways of dealing with and delegating management responsibilities in order to sustain the most appropriate action decision.

An effective and safe method for auditing risk management and control system is essential to support decision-making process. Risk assessment exercise in general has more utility. For example, the current economic crisis increases the pressure on managers to reduce costs of technology executives, improve operational performance, while maintaining an acceptable level of residual risk. In most cases, the measures set is focused on restructuring and rapid reorganization of operational activities. All these activities must be based on a thorough risk assessment.

Risk assessment exercise is an integral part of the overall management process. The information generated can be applied in many departments of an organization. Risk assessment exercise has significant benefits and can give assurances that the entity is an efficient and ethical performance. It will become increasingly important for Romanian entities, as they try to compete in the competitive climate of the single European market.

2. Post-accession funds to Romania by the European Union

Romania joining the European Union took place on January 1, 2007. This time it was proposed at the summit in Thessaloniki in 2003 and confirmed in Brussels on June 18, 2004. After January 1, 2007, when joining the European Union, Romania was awarded the management of extended decentralized (EDIS - Extended Decentralized Implementation System) of funds.

The extended decentralized system involves:

- a system of well defined fund management, the internal rules of procedures, institutional and personal responsibilities;
- existence of the separation of powers;
- existence of specific regulations on the invitation to tender, implementation of Community directives on public procurement;
- demonstrate the effectiveness of international controls including an independent audit function, effective accounting and financial reporting, consistent with accepted international auditing standards.

Romania had a large gap to the older EU member states in terms of consolidating the administration and public institutions (institutional development) and economic and social cohesion (SME development, social services, human resources development, technical and vocational training).

Generally, in Romania, public opinion was favorable to European integration. According to Euro barometer (biannual opinion survey organized by the EU), in autumn 2005, Romanians' trust in the European Union, although still the highest among the Member States or acceding, is more similar to the other Member States: 64 % to 62% in Portugal and Greece.

Euro barometer 2010 shows him on the Romanian pessimistic, following the economic crisis, which I think in Romania - unlike the EU, where things seem to move economically - things getting worse.

The main concern on the situation in Romania is in connection with the economic crisis (53%), rising prices / inflation (39%) and unemployment (36%). On a personal level, Europeans are concerned about unemployment, while Romanians are worried about price rises (50%), the economic crisis (37%), healthcare (23%), pensions (19%) and then the unemployment (15%).

In order to solve the crisis, Romanian hopes turn to government (38%), EU (26%), G20 (12%) and IMF (10%). Trust in European institutions, European Parliament and European Commission Romanians remain above the EU average (50%, 46%). More than half (58%) of them believe, moreover, that democracy operating in the EU, while 79% believe that it does not work in Romania.

Seventy-five percent of Europeans consider that closer coordination of economic policies and financial relations between Member States would be effective in combating the economic crisis. Euro barometer survey was conducted in May - the peak of financial crisis europe. 72% of Europeans support a stricter supervision of the EU's most important activities of international financial groups, representing an increase of four percentage points compared the last Euro barometer in autumn 2009. Main concerns of Europeans about the crisis were: current economic situation (40%, unchanged compared to autumn 2009), unemployment (48%, minus three percentage points) and rising (20% plus one point). The crisis also influenced citizens' perception of the EU: 40% of Europeans associate the EU with the euro (plus three points), 45% with the freedom to travel, study and work anywhere in the EU (minus one) and 24% with peace (minus four points).

In the first year in the EU, Romania has absorbed only 22% of European funds have been allocated from EU (0.44 billion euro's from 2.0 billion allocated). Countries like the Czech Republic, Hungary, Slovakia managed to absorb over 40% of EU funds in membership. Romania's worst performance is explained mainly by delays in agreeing with the EU priorities and problems in agriculture, of identifying areas of land eligible for EU funding and the organization paying agencies.

In 2010, Romania has attracted European funds worth 4.6 billion lei, the equivalent of 1.1 billion euro's, double the amount being recorded throughout the period 2007-2009.

In 2007-2013 we provided 19 billion, which means that the next three years to attract at least 3-4 billion annually to reach an acceptable degree of absorption.

In late December 6451 EU-funded projects were already approved, which cover 107% the proportion of the amount made available by the EU in 2007-2010, but the big problem is that many of these projects have difficulties in attracting the necessary bank financing .

The annual allocation for Romania for seven years the program is about 3-4 times higher than the funds available through EU pre-accession instruments - Phare, ISPA and SAPARD. Global financial allocation established by European Council Decision of December 2005, is about 3.8% of GDP (totalling 19.7 billion euro's).

Upon entry into the European Union (EU), Romania has one long-term strategic objective: to achieve a European standard of living by transforming the economy into a competitive knowledge economy. This year, the GDP per capita is only about 40% of the EU. Depends, however, only new to the opportunities of EU membership.

Structural and Cohesion Funds are financial instruments of economic and social policy community, which supports reducing the gap between the development levels of different regions of EU Member States and promoting in this way, the economic and social cohesion.

Currently, the European Union there are four structural funds:

- European Social Fund (ESF), whose establishment was provided by the Treaty of Rome;
- Guidance and Guarantee Fund (EAGGF), Guidance Section, created in 1962 (division into sections of "orientation" and "guarantee" dates back to 1964, the "guarantee" financial instrument representing the Common Agricultural Policy);
- European Regional Development Fund (ERDF), established in 1975;
- Financial Instrument for Fisheries Guidance (FIFG), created in 1993.

Each instrument has a dedicated structure:

1. European Regional Development Fund (ERDF) supports investment in areas such as:
 - Infrastructure, development of production and processing facilities, institutional structures for new business, tourism, urban, medical facilities, schools, environmental enhancements and development of local and regional transport and means of transport etc..;
 - Financial support and advice for SME business development services, research and development, technology transfer initiatives, capacity building for local communities, etc..;
 - CBC special initiatives, transnational and interregional cooperation within the European Territorial Cooperation objective.
2. European Social Fund (ESF) supports a wide range of investments in human resources development and training, in accordance with the European Employment Strategy of Employment:
 - Integration of the unemployed through training and various labor market measures;
 - Supporting entrepreneurs and measures to improve skills and productivity of persons employed;
 - Implementation of actions aimed at social inclusion of people from disadvantaged groups;
 - Improving education, including vocational and technical education.
3. Cohesion Fund (CF) contribution to large infrastructure projects such as construction and modernization of the trans-European transport corridors (TEN-T) and major investments in environmental infrastructure (water, sewage, waste, etc.). FC is available to Member States with gross national income less than 90% of EU average. Currently, this category is the Greece, Portugal and Spain, and the 12 new Member States, including Romania. In Romania, investment instruments will be complemented by structural funds the European Union's Common Agricultural Policy and Common Fisheries Policy.
4. European Agricultural Fund for Rural Development (EAFRD) aims to increase competitiveness in agriculture, rural development and improved quality of life in rural areas by promoting diversification of economic activities and specific actions for environmental protection. Also, through LEADER projects, EAFRD financing and implementing development strategies of local action groups in rural areas and experimental approaches (pilot projects) on rural development.
5. European Fisheries Fund (EFF) supports investments in the development of living aquatic resources, modernization of fishing vessels and improve processing and marketing

fish. The EFF support and implement strategies for sustainable development of coastal areas.

To be eligible for funding through the Structural Instruments, projects must meet the following conditions:

- to contribute to one or more of the operational program objectives;
- be submitted by eligible beneficiary as defined in the Guidelines for Applicants;
- to quantify and provide details of clear and achievable targets;
- contribute to sustainable socio-economic development of the area;
- have secure funding and identify recipients of funds and financing sources;
- complies with national and Community aid and public procurement;
- do not duplicate existing work or not to replace existing or planned expenditures.

The criteria used for selection of eligible projects will be different from one OP to another. In general, however, the projects submitted will be judged according to the degree to which they:

- meet national, regional or local, or are related to other EU projects and programs;
- evidence of an effective partnership for the formulation and implementation;
- provide an accurate estimate of the budget against planned results;
- take into account the need for long-term environmental protection;
- promote equal opportunities;
- are innovative;
- demonstrate sound management systems;
- provides a credible strategy of continuity when funding from the European Union will end.

National Development Plan 2007-2013, is the document of strategic planning and financial planning approved by the Government aimed at economic development and social orientation of Romania under the EU Cohesion Policy and the agreed strategy which was developed with European Commission structural instruments and Operational Programmes.

The overall objective of the National Development Plan 2007-2013 is "swift reduction of socio-economic development disparities between Romania and EU Member States".

The overall objective is supported by three specific objectives:

- long-term competitiveness of Romanian economy;
- develop the basic infrastructure to EU standards;
- improvement and better use of local human capital.

To achieve these goals, national development priorities for 2007-2013 are:

- economic competitiveness and knowledge economy;
- development and modernization of transport ;
- protect and improved the environment;
- human resources development, employment, social inclusion and strengthening administrative capacity
- development of rural economy and increasing productivity in agriculture
- reducing disparities between regions.

National Strategic Reference Framework 2007-2013, which is agreed with the European Commission strategy for structural instruments, the main aims of the strategic objective of strengthening economic, social and regional cohesion in Romania, as well as establishing links with Commission policies appropriate and fair Europe, especially with the Lisbon Strategy, which underpins economic development policy and the creation of new jobs.

Operational programs are documents approved by the European Commission to implement those sectorial priorities and / or regional national development plan which are approved for funding by the National Strategic Reference.

3. Management and control system established for the development fund

To understand public external audit of the funds granted by the European Union has started the management and control system components to run up post-accession funds to Romania by the European Union which are:

- The management, whose responsibility is the management and implementation of financial assistance by the European Union
- Intermediate bodies, which management authority may delegate some of its powers.
- Authority for certification of payments, whose responsibility is to certify statements of expenditures before their transmission to the European Commission.
- Audit Authority, which is the only national authority to make public external audit
- in accordance with EU and national legislation on these funds.

Each link in the system has an important role in the system, but still I lean especially on the due to its role as evaluator of the system.

Checking the management and control is performed by the Audit Authority, and mainly consist of:

- Verification of systems in terms of compliance with the legal community;
- Check the functioning of management and control;
- Verification, based on a representative sample of expenditure declared to the authorities responsible for managing and implementing EU funds.

Audit Authority was established in the Court of Accounts Law No. 200 of 23.06.2005 approving Government Emergency Ordinance no. 22/2005 to Law no. 94/1992 on organization and functioning of the Court of Auditors for the audit on the management of Community funds allocated to Romania by the European Union.

Duties of the audit established by Law no. 200/2005 were extended by GEO. 12/2007 amending and supplementing O.G. no. 79/2003, concerning the control and recovery of funds and related co-financing funds, misused.

By Law. 217 of October 24, 2008, published in Official Gazette no. 724 of October 24, 2008, amended and supplemented Law. 94/1992 on organization and functioning of the Court of Accounts. According to Law no. 217/24.10.2008, the Audit Authority of the Court of Auditors, is the only national authority to make public external audit in accordance with EU and national legislation, the pre-accession funds allocated to Romania by the European Union PHARE, ISPA and SAPARD, structural funds and cohesion, the European Agricultural Guarantee Fund, European Fund for Agriculture and Rural Development, European Fisheries Fund and for funds to be granted after accession.

Audit Authority Audit operates taking into account international accepted auditing standards (including but not limited to, INTOSAI, IAASB-ISA) and applicable national legislation and structural and cohesion funds granted to Romania by the European Union.

Between institutions involved in the management of operational, subordinate Government and the Audit Authority of the Court, there is no relationship of subordination, answering the requirements of Article 59 (1) (c) of Council Regulation (EC) no. 1083/2006.

Court stated independence is guaranteed by the Romanian Constitution, in which, in Article 140 paragraph. 4, provides that "Members of the Court of Audit shall be independent in the exercise of their office and irremovable throughout its duration. They are subject to the incompatibilities the law for judges. "

By Article 21 of Government Decision no. 457/21.04.2008 on the institutional framework for coordination and management of structural instruments, it was agreed that "The role of audit authority and related functions, as provided in art. 59, 62 and Art. 71 paragraph. (3) of Regulation (EC)no. 1083/2006 the Council, Art. 102, 105 and 116 of Regulation (EC) no.718/2007 of the Commission on Art. 31 of Regulation (EC) no. 951/2007 of the Commission and Art. 53 paragraph b. (3) of Regulation (EC, EURATOM) no. 1.995/2006 Council are met by the audit authority of the Court of Accounts, appointed pursuant to Art. 14 ^ 1 of Law no. 94/1992 on organization and functioning of the Court of Auditors, republished, with subsequent amendments. "

According to Article 62 of Council Regulation (EC) no. 1083/2006, functions of the Audit are:

- *"a). ensure that audits are carried out to verify the effective functioning of the management and operational control program;*
- *b.) ensure that audits are carried out operations on an appropriate sample to verify expenditure declared;*
- *c). to the Commission, within nine months of the approval of the operational program an audit strategy (.....)*
- *d). by 31 December each year between 2008 and 2015:*
 - *i). submit to the Commission an annual control report showing the results of audits conducted during the previous twelve months ending 30 June of that year in accordance with the audit strategy and operational program to reporting any shortcomings found in the management and control of the program. The first report shall be submitted by December 31, 2008 and covers the period from 1 January 2007 to June 30, 2008. Information concerning the audits carried out after July 1, 2015 are included in the final control report, supported the closure declaration referred to in (e);*
 - *ii). issuing an opinion on the controls and audits that were conducted under his supervision, to whether the management and control systems function effectively so as to provide a reasonable assurance that statements of expenditure presented to the Commission are correct and, Therefore, the underlying transactions are legal and regular;*
 - *iii). provide, as appropriate, under Article 88, a declaration for partial closure assessing the legality and the fact that these are regulatory costs (.....)*
- *e). to the Commission by 31 March 2017 a closure declaration assessing the validity of the request for payment of the balance and the legality and regularity of transactions underlying the final declaration of expenditure, contained in the final control report."*

Article 71 of Regulation (EC) no 1083/2006 provides that:

"1. Before submitting the first application for interim payment or twelve months from the approval of each operational program the Member States shall submit a description of the systems, in particular the organization and procedures:

(a) Managing and certifying authorities and intermediate bodies;

(b) The audit authority and any other bodies carrying out audits under its supervision.

Two. Description referred to in paragraph 1 shall be accompanied by a report showing the results of the evaluation systems and an opinion on their compliance with Articles 58-62 "

In accordance with Article 71 (2) of Regulation (EC) no. 1083/2006 and Article 25 of Commission Regulation (EC) no. 1828/2006, the Audit Authority will assess the management and control systems in place for operational programs in order to express an opinion whether they comply with the requirements of Articles 58-62 of Council Regulation and Section 3 of Commission Regulation (EC) no 1828/2006

Duties of the audit referred to in Article 2 of Law No. 14². 94/1992, republished, Article inserted by Act no. 200/23.06.2005 approving Government Emergency Ordinance no. 22/17.03.2005, the Law no.94/1992 on organization and functioning of the Court, established in accordance with applicable national legislation and ISPA and SAPARD programs and funds related to financial assistance granted to Romania by the EU post-accession period are as follows:

"a) the system audit, sample-based verification and final audit;

b) checks and external audit of structural funds that Romania will benefit from 2007;

c) annual check the functioning of management and control systems established to conduct ISPA and SAPARD programs;

d) verification of eligible expenditure declared, based on sample;

e) carries out appropriate checks to issue statements to the completion of measures and programs;

f) certification of annual accounts SAPARD in terms of completeness, accuracy and veracity of their;

g) checking the existence and accuracy of national co-financing element. "

Also, in 11¹, paragraphs 1-2 of the Government Ordinance no. 79/2003 on the control and recovery of Community funds and related co-financing funds misused, Article inserted by Government Ordinance no.12/31.01.2007 for amending and completing Government Ordinance no.79/2003, includes the following provisions relating to the Audit Authority:

"(1) The Audit of the Court of Accounts, through its structures at central and regional, is the national competent authority to conduct external audit in accordance with EU law and national legislation on the management of funds.

(2) To assess the management and control systems for the management of Community funds for prevention and / or identification of irregularities (...), the Audit Authority, through its structures at central and regional external audit carried out based sampling, the PHARE, ISPA and SAPARD, the programs financed from structural funds and cohesion, the European Agricultural Fund for Rural Development and European Fisheries Fund."

Above-mentioned tasks are undertaken by the Audit Authority is not delegated to other audit bodies.

At the audit by the Audit Authority are IFAC International Auditing Standards and regulations specific funds.

International Federation of Accountants (IFAC) is the global organization for the accountancy profession. It is comprised of 155 professional accountancy bodies in 114 countries, representing more than 2.4 million accountants in public practice, education, government service, industry and commerce. IFAC's mission is to develop and enhance the profession to enable it to provide high quality public services. In addition to auditing standards in developing countries through the International Standards Board Auditing and Assurance Board (IAASB), IFAC also develops, education, ethics, and public sector accounting standards.

IAASB's role is to improve auditing and assurance standards and the quality and uniformity of practice throughout the world, thereby strengthening public confidence in the global auditing profession and serving the public interest.

Internationally, the International Federation of Accountants (IFAC), International Accounting Standards Board Auditing and Assurance Board (IAASB) looking for new guidelines to improve audit quality worldwide by requiring auditors to perform risk assessments better.

International Standard on Auditing - ISA 200 on audit risk (objectives and general principles governing an audit of financial statements) allow auditors to focus on areas where there is a higher risk of distortion of financial statements.

4. Conclusions

The European Commission has imposed or has failed to impose a unified and coherent implementation of the audit, accepted by the European Court of Auditors.

Obviously in the case of new Member States such as Romania, things may work slower than in states that have accumulated experience in managing and monitoring the management and control systems in place to carry funds granted by the European Union post-accession.

In the current development of reliable indicators to help early identification of potential risks, their communication managers audited and decisions to be taken is favorable and can help the absorption of funds.

Collecting information in this area to bring them within reach of the actors involved in the audit of funds allocated to Romania post - accession, on the one hand help to avoid misinterpretation and application standards and to assist practitioners with new guidance to plan and perform the audit.

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AUTOCRAT VERSUS DEMOCRATIC LEADER. CASE STUDY IN PUBLIC INSTITUTIONS FROM COUNTY CALARASI

CRETU Daniela

*Professor, Faculty of Management, Economic Engineering in Agriculture and Rural Development/Department
Economics, Accounting and Agrotourism, "University Agronomic Sciences and Veterinary Medicine",
Bucharest, Romania, cretu.daniela@managusamv.ro*

TUDOR Valentina

*Professor, Faculty of Management, Economic Engineering in Agriculture and Rural Development/Department
Management and Marketing, "University Agronomic Sciences and Veterinary Medicine", Bucharest, Romania,
tudor.valentina@managusamv.ro*

IOVA Andrei

*Associate professor, Faculty of Management, Economic Engineering in Agriculture and Rural Development/
Department Economics, Accounting and Agrotourism, "University Agronomic Sciences and Veterinary
Medicine", Bucharest, Romania, iova.andrei@managusamv.ro*

Abstract: *Management style differs depending on the personality of the manager, on his experience and competence at work. If a manager has around him people educated and trained, then automatically the head will be a democratic leader or will tend to democracy. Otherwise, it would prevent dictatorial style to retain quality people around him. However, a manager, be it Democrat, tend to have a different attitude to employees with weak capacity on their job, which feels the need to give clear guidance. Depends on management style and financial situation in which is the company. If things are good economic managers atmosphere is more relaxed and more "democratic". But the style varies depending on their duties. If working in a sophisticated area, where people around the manager are very well trained and initiative, then leaders will tend to be Democrats. If you are working in production, where work product is concrete and immediate, then the leader will tend to be in control.*

Key words: autocrat leader, democratic leader, leadership

JEL classification: M12, M54, J53, J54

1. Introduction

Leadership as a concept could be translated as the art of leadership and management not only as English dictionary says - novel. Why? Maybe that leadership as a subject is more a guide to help understanding, application and management process of going through.

Despite recognition of the importance of leadership, there is some mystery in terms of clearly defining it. In a review of research on leadership, Stogdill (2003, p 259), concluded that "**as many definitions of leadership are many people try to define**".

In short, leadership is a complex phenomenon that touches nearly all organizational processes, social and personal. Depends on a process of influence where people are inspired to reach targets by personal motivation.

"...leadership is as a Abominable Snow Man, whose steps are everywhere, but is nowhere to be seen"

2. Material and Method

The quantitative research was conducted during September-December 2011, based on semi-standard questionnaire, applied face to face in the workplace of subjects by interviewing actors with administrative responsibilities, namely: local councillors, mayors and deputy mayors; local key actors (doctors, teachers, priests, representatives of cultural institutions, education, social work, police);

Research showed respondents opinions and attitudes of 15 above-mentioned joint county of on the identification of specific attributes of leadership, for shaping autocratic or democratic leadership style, namely:

- communication within the organization
- a team leading to the successful achievement of objectives

- encourage team decision-making process
- tasks and organize time effectively
- perception changes and improved performance and behaviour
- complex transformation projects in individual tasks, easy to follow
- • conflict management

Questionnaire, included 11 questions, was applied to a number of 165 respondents from the 15 common. The sample was selected with a statistical sampling step based on studies, specializations obtained by studies of office in public institution, to provide a representative sample in terms of age groups and function responsibilities, leading to behaviours and attitudes specific leadership.

The results from the interpretation of this data set have led to a research report.

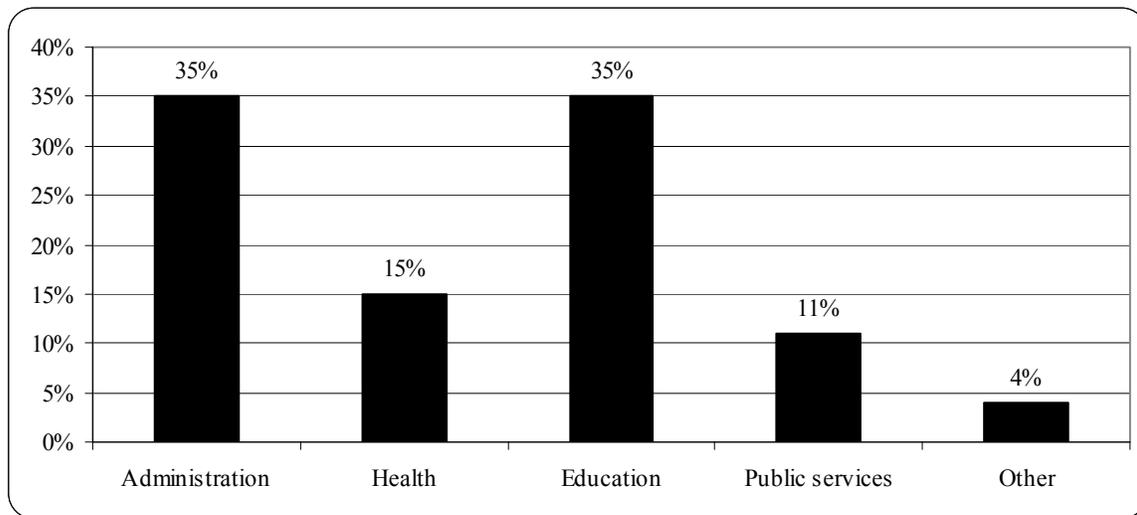
3. Result and Discussions

The questionnaire included open questions, multiple choice and assessment of claims, according to a scale from 1 to 5 (*1 = totally disagree, 2 = partially disagree, 3 = do not know, 4 = partially agree, 5 = totally agree*).

The first part of the questionnaire, questions 1, 5, requested information about the respondent and the organization to which it belongs, namely: IDENTIFICATION DATA (name of institution, institution address, phone / fax /e-mail), PREDOMINANTLY FIELD ACTIVITY: administration, health, education, services public, other.

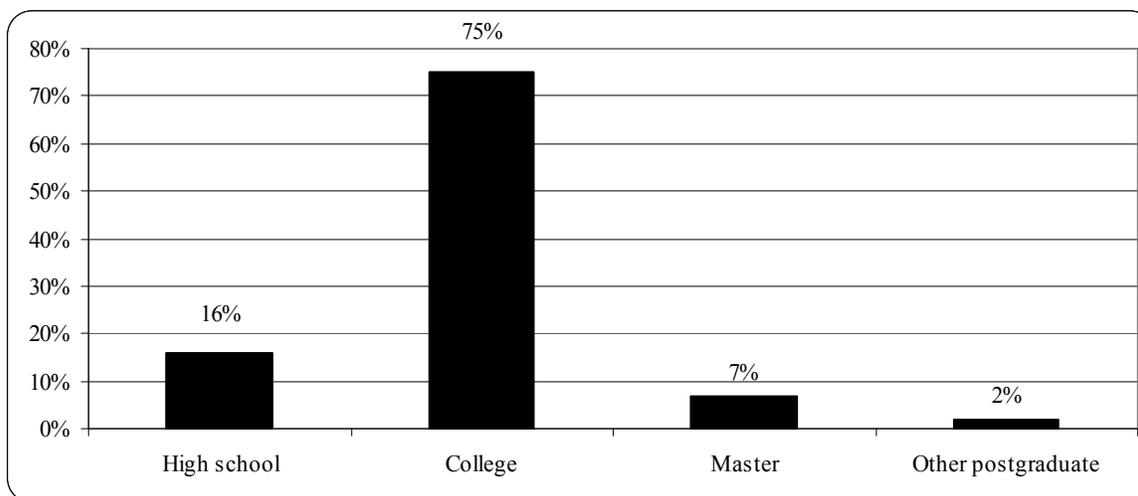
On this question, the respondents structure is presented in Figure 1.

Figure 1. The percentage structure of respondents by area activity



Other questions concern the total number of employees, position (position) within the institution, other respondent data, including the studies, as is shown in Figure 2.

Figure 2. Structure of respondents by level of education.



Question 6. Please rate the following statements for your institution, according to a scale from 1 to 5 (1 = totally disagree, 2 = partially disagree, 3 = do not know, 4 = partially agree, 5 = totally agree).

Nr. Crt.	AFIRMATIONS
1	Leaders are people with outstanding features
2	To be a leader you must be born with qualities (talent) necessary
3	The leader can achieve success only with those who argue
4	Leaders must be promoted within the organization
5	In this organization leaders are managers
6	Managers prefer to be respected and feared at the same time

Of respondents, 73% think that leaders are people with outstanding features and a good management practice to have his subordinates and back. Although leaders are treated with respect by colleagues, is estimated to have less control over resources and are less able to punish and reward. Managers, however, prefer to be respected and feared at the same time, say 61% of respondents. There are respondents who believe that any organization copied the model of attitude and behavior of the leader. If the leader has a conflict or competitive attitude, attitude will be sent to employees. If the leader has a constructive attitude, so will be the organization. If the leader preferred stock control / budget, it will be managers.

Question 7. Think how it act on the most common situations when driving team. Just circle the letter that best matches your behavior when discussing a difficult problem with my team:

- a). I express a view and offer a solution
- b). First listen to the opinions of others and b suggest a mutually agreed solution
- c). People think heaven and summarize what I heard.

There are managers who prefer to be respected, but there are others who adopt a tougher attitude. There may be feared and respected managers in the same time and in some cases even make happy. Depends on circumstantial factors. For example, a subordinate weak or insecure tend to be prepared before a leader fearing autocratic, dictatorial.

Regarding the influence of the two management styles on subordinates, depends both on how employees react to a management style or another, and the situation in which the company (crisis or sustained increase). An employee well prepared and knowledgeable is likely to perform better with a

management style "democracy", which is given the chance to participate in decision making so that we can motivate more. On the other hand, in most cases, a mediocre employee requires close supervision and direct management manner.

Leaders train their teams after their own image. In terms of specialists (3), democratic leadership only works with teams able to develop ideas and implement them. But if employees are part of those that must be pushed back, then they need authoritarian leaders. 56% of respondents say Democratic leader respected by people, but it will always have problems when you introduce new rules. It takes time and explanation because people opposed to change in a business should not rely that employees will voluntarily change. Changes affecting personal comfort of employees required by the manager, not do for themselves. Therefore, there are situations in which the manager has a democratic and authoritarian behavior unequivocally.

8. Ranked on a scale from 1-5 (1 = least important, 5 = most important) the following values as you perceive that leaders are promoted by your institution

- Loyalty to the institution and to the direct leader
- Respect for the rights and dignity of every person in the organization
- Teamwork
- Support for individual creativity and innovation
- Belief that an organization must perform tasks at a higher level
- It is essential that the institution is a place where all employees feel good
- It is essential that the institution is a place to maintain a safe working environment for all employees
- Manifestation of humor
- Ethical and responsible leadership
- Emphasizing the importance of quality in everything that is done
- Achieve performance
- Open and honest communication
- Vision creativity and strategic thinking
- People are our most valuable resource of the organization

There are managers who give everyone the opportunity to express their opinion and others who restrict consultations only to circle the board of management decision. 58% of respondents believe that you can give everyone the opportunity to express their opinion when you drive a small team, but when talking about hundreds of employees, must rely on a handful of people, you select the best. That does not mean giving up dialogue with employees, you can still get the survey's, focus groups, project meetings, team building etc..

9. How do you evaluate the characteristics leaders / performers in your institution, according to a scale from 1 to 5 (1 = very low, 5 = very high)

Nr. crt.	QUALITY
1	Professional knowledge
2	Management knowledge
3	Ability to make decisions
4	Creativity
5	Experience in field
6	Ability to develop and implement strategies and policies
7	Knowledge of languages
8	Teamwork
9	Attachment to the company
10	Involvement in business life
11	Support of others
12	Communicating with people with whom they interact
13	Reliability

14	Ethic
15	Focus on objectives
16	Openness to new
17	Knowledge of customer requirements
18	Resolute action to change

10. Please evaluate statements on organizational culture in your institution, according to a scale from 1 to 5 (1 = disagree, 5 = totally agree):

Nr. Crt.	Organizational culture
1.	Institution's success depends largely on the characteristics of their organizational culture.
2.	The institution has a set of values known and accepted by most employees.
3.	Leaders and all employees know what is and is not accepted in our organization.
4.	The institution is organizing a diverse range of events, ceremonies (ex: anniversary) leading to a increasing cohesion and employee performance.
5.	Men and women participate equally in activities
6.	Organizational culture of our institution is different from competitors.

Management style differs depending on the circumstances (experience and skills manager, relationship with the subordinate, subordinate skills and motivation, corporate culture or context in which the company is). According to Stogdill {2}, management style defines how the manager relates to subordinates. He correctly considered as the manager who encourages subordinates to give his opinion about a situation. However, according to the theory of Robert Tannenbaum and Warren H. Schmidt {4} this approach fits paternalistic style.

They argue that a manager's affinity for a particular management style is related to how the manager brings performance and the options and character traits. On the other hand, is a custom that managers of state companies to address an autocratic management style. That manager "dispose", which means that the decision without taking into account the subordinates. Using skills, energy and experience of each team member, you get better results and faster than if the team dictate what to do. I think that team member who demonstrates a high standard of professionalism and motivation needs more supervision than the head, however it may be helpful coaching. But the ultimate goal is always to achieve performance objectives. In most cases we believe that the reward is more effective than the penalty and, regardless of management style approach, it is essential to make the team perform.

11. Please rate on a scale of 1-5, the following attributes that you want to see from your leaders (1 = disagree, 3 = do not know, 5 strongly agree)

Nr. Crt.	CHARACTERISTICS
1.	Strong motivation of staff
2.	Independence
3.	Strong ambition
4.	Informal communication with everyone else
5.	Ability to learn from any situation
6.	The ability to create a nice working environment
7.	Focus on clear objectives
8.	Intercultural skills
9.	Desire to contribute to professional development of its employees
10.	Avoiding conflict

Respondents in various fields, were released in a real debate when he raised the issue of attitudes (authoritarian / right) that have managers from us.

Some of the respondents (34%) say that the leader who believes that only his opinion counts and that is based only on experience, no matter how vast is, he could be up to manager, in any case no lead.

Most of respondents (67%) believe that we can speak of both, both new and in other regions or cultures. It is true that if the former communist countries is more plausible to speak of a cultural model based on authority and the managers here are struggling with reminiscence of the times in which things are imposed and not discussed. But the world is evolving and with it the stereotype tends to disappear and be replaced by the modern manager, which requires the power of their example.

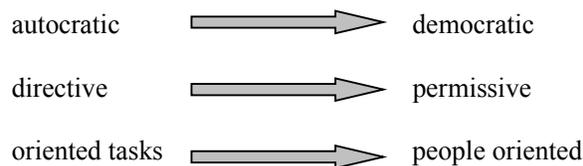
Effective leaders are in possession of skills, behaviors and specific knowledge plays a decisive role in their work. Each individual carries a stock of knowledge, skills and behaviors that result from their own experience of life (work, education and social interaction) and each individual has the ability to improve skills and to modify certain behaviors to become more effective leaders. This can be done through conscious efforts and continue through practice and training.

It is in human natural to look for behavioral patterns that people follow that inspires trust and confidence. Is largely a natural talent of the people to be leaders. But individual leadership qualities can be improved.

Approach of leader behavior

What the leader do?-How does exercise influence over others?

Effective *leadership* behavior is part of the pairs:



Given the assumptions on which the leaders makes on their followers, D.McGregor emit

X Theory- Y Theory.

X Theory or traditional view of leadership

People have an aversion to work and avoid as they can, therefore, people should be controlled and threatened with sanctions to be determined to contribute to the organization goals. People want to be controlled and directed in their efforts, because that allows them to avoid the responsibilities effectively. In view of D. McGregor, which expresses the idea that people are lazy and have forced to work, stayed in the past based on management practice, leading practicing authoritarian leadership, paternalistic and mechanistic, based on control and coercion.

Y Theory

It is based on the following assumptions: people consider work as an intrinsic part, normal life, people do not, in the work of threats, sanctions and control it works very well when they are rewarded for performance achieved, they seek to take increased responsibilities they are encouraged in this direction, most people have a remarkable creative potential in the modern economy, is only partially exploited.

Table 1. How involved the subordinates of a leader who will act according to the latter's assumptions about their attitude towards work

	<i>If subordinates meet assumptions X Theory</i>	<i>If subordinates meet assumptions Y Theory</i>
If the leader believes that subordinates meet assumptions X Theory	Subordinates act in accordance with the provisions, are dependent on leader and creativity manifested low	Subordinates are frustrated because leadership practice, based on control and coercion, does not allow displaying their real job opportunities and creation.
If the leader believes that subordinates meet assumptions Y Theory	Subordinates achieved modest success as they have the necessary maturity	Subordinates made high performance as their needs are fully satisfied in the enterprise

Net boundaries made by the four quadrants of the table are not found as such in reality. It may often happen that the **leaders** form an impression of **their subordinates**, which may not match their actual characteristics and also that **subordinates** do not have all the characteristics described. Given these realities, **leaders** must always adapt selectively to specific situations faced, based on careful analysis of **subordinates**, to evaluate the overall situation and their ability to choose the most appropriate **leadership**.

Behavior of leaders can be:

- **focused on behavioral tasks** - is specifically concerned with the performance **leaders** and qualitative term corresponding tasks for conducting activities according to plans and programs, setting precise quantitative and qualitative performance must realize that each subordinate. Subordinates are paid in a stimulating result for each unit of acceptable quality. **Leader** must have competence to plan and organize work to his subordinates in order to maximize their performance.

- **people oriented behavior**, the creation of an effective work team by supporting subordinates in their efforts, the use of electronic means and means of harmonizing the needs of their organization's requirements.

Absolutization of to one or other behavioral methods proved to correspond to the existing **leadership** in reality, in which are combined in different proportions, concerns **leaders** for tasks with dedicated people.

4. Conclusions

1. A person can be an effective manager without a leadership capacity.
2. There is always confusion between management and leadership: business manager and leader is automatically considered. He is the boss, so he is the leader!
3. After careful consideration it appears that public institutions there is a general plan for developing leadership.
 - there is still a tradition of leadership;
 - missing communication between senior managers and employees;
 - managers are more involved in solving tasks to subordinates and less in their coordination, lack of confidence in the ability of employees to carry out these tasks;
 - missing models that young generation to follow.
4. It is very important that you encourage people to express themselves, to come up with ideas and even to say no when you have, even if final decisions you take them. The fact that you can see things from different perspectives - some may not have thought you'd never - offers unexpected opportunities and opens new opportunities.
5. Influence on the team are leaders who think and act like them. But it is not known which type of manager has more influence on employees. Authoritarian leader seeks to be "subject" around him. He can find people who agree to be pushed back and the results can be good in the short

term. But atmosphere is not pleasant and will never risk losing the ability to post their employees, who will seek employment elsewhere. It is desirable for the leader to be respected. Companies come to have value if they create leaders, people then go to pursue ambitions. It badly needs a leader to follow on that, otherwise, you work and you will oppose the earliest opportunity.

6. Depending on the strategy you choose and the product they sell, you choose people you need. Without a leader to have a tough attitude in business, you can not follow the parameters of efficiency. Always good to have a dose of fear.

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THE IMPACT ON RURAL DEVELOPMENT PROGRAMS ON ENVIRONMENT. CASE STUDY, COMMON DOROBANTU, COUNTY CALARASI

MICU Marius Mihai

Ph.D. student, Faculty of Management, Economic Engineering in Agriculture and Rural Development/Department Management and Marketing, "University Agronomic Sciences and Veterinary Medicine", Bucharest, Romania, micumariusmihai@yahoo.com

CRETU Daniela

Professor, Faculty of Management, Economic Engineering in Agriculture and Rural Development/Department Economics, Accounting and Agrotourism, "University Agronomic Sciences and Veterinary Medicine", Bucharest, Romania, cretu.daniela@managusamv.ro

TUDOR Valentina

Professor, Faculty of Management, Economic Engineering in Agriculture and Rural Development/Department Management and Marketing, "University Agronomic Sciences and Veterinary Medicine", Bucharest, Romania, tudor.valentina@managusamv.ro

Abstract: *Social and economic problems that have affected mostly rural areas both argue the need to develop effective national policies of its development and the need to study social factors likely to enhance the community level development processes. The subject of today's rural community development has become a strategic priority for many national development policies. The great interest of many development projects to rural communities is determined not only by increased rural-urban disparities, but also the need to improve social factors in promoting citizen participation in community development process. However, while the development of rural communities is carried out based on imported models, anchored in the reality of villages without a prior study of the existing situation, it becomes imperative need for thorough investigations of community development from the perspective of social and economic factors that stimulate.*

Key words: rural development, rural space, questionnaire, quality of life, development programs

JEL classification: Q01, Q56, R11, R58

1. Introduction

Rural areas in Romania is a cardinal component of the evolution of the Romanian economy. Three rural resources need to give the true dimension of restructuring agriculture and rural development in our country: UAA (14.8million ha), farm labour (3.5 million) and total area of the countryside (90% of the country).

In this perspective, Romania has to adopt rural policies to include elements to accelerate the process of compatibility, especially in the regulation of property rights and guaranteeing it, but also to improve infrastructure and education in this specific segment.

In specifying the agricultural and rural policies, however, must proceed from the fact that agriculture is not only economic sector producing goods and profits, it is also a way of life and rural areas is not only a production area, but is , both a social and cultural space with complex issues concerning the overall state of the nation.

In these conditions, this paper makes a study on the impact of rural development programs on rural areas in view of theories, problematic interdependencies and constraints. Without a coherent strategy is lacking in funds, is wasting resources, especially time, while flows over population living in rural areas.

2. Material and Method

For rural development programs impact on the realities of rural county Calarasi three methods were used for specific research:

- dynamic economic analysis, deductive and quantitative;
- SWOT analysis;
- economic survey or participatory research that involves gathering information from the area using the research techniques "questionnaire" and "interview".

The starting point of the county development strategy, taking account of implementation in this environment, the European programs was to analyze the social, economic and institutional reforms which led to the identification of key issues facing the county and its potential in to establish strategic direction that supports and is consistent with the general goal of regional development strategy.

The sustainable development strategy Dorobantu village were used the following data sources and tools for getting information about the current status quo and the identification of local needs:

- Research on documents

Were analyzed documents provided by the major of Calarasi County Council, Directorate for Agriculture and Rural Development and other county public institutions for achieving diagnostic analysis of the village which included:

- dates about the location of the village and on its physical-geographical;
- statistics and census carried out locally, in the fields of demography, employment, economic environment, education and culture, environmental protection;
- specific statistics on environment and agriculture, conducted by the Institute for Quality of Life in the project "Pollution Control in Agriculture";
- General Urban Plan.

The strategy also correlates with the strategies and action plans at national, regional and county.

- Field research

The quantitative research was conducted during September-December 2011, based on semi-standardized questionnaire, applied face to face, the domicile subjects.

The survey recorded the views and attitudes of common people Dorobantu, Calarasi, on:

- Satisfaction with life and local public services;
- Confidence in institutions and citizen participation;
- The perception of change and development potential of village;
- The impact of rural development programs on quality of life in rural.

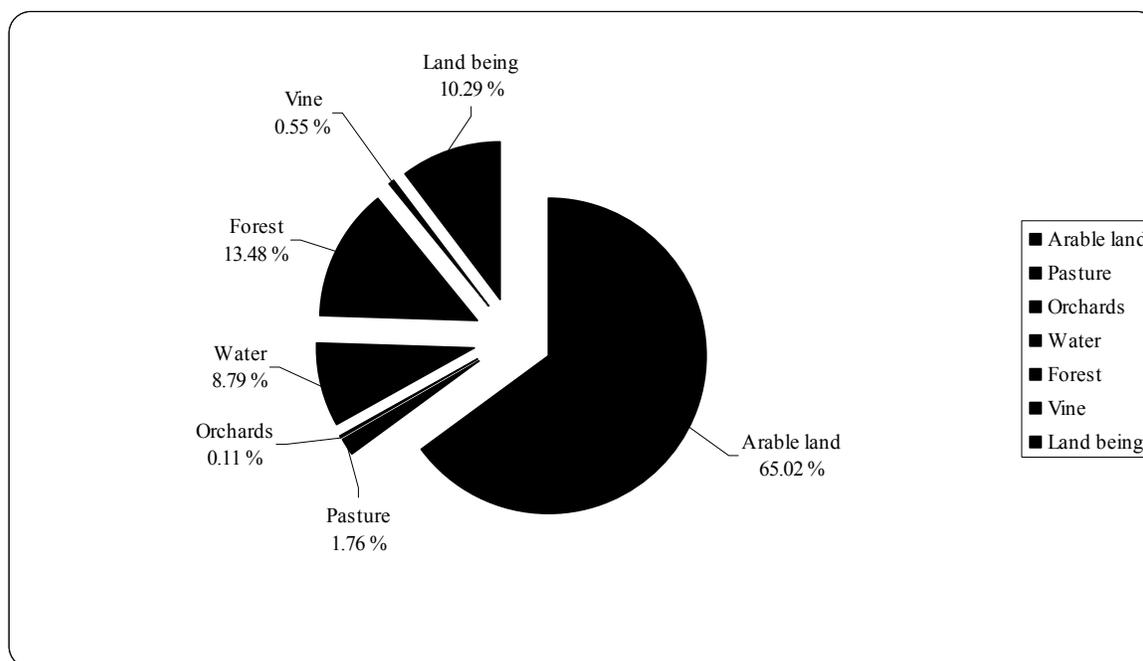
Questionnaire comprising 11 questions was applied to a number of 63 respondents in common. The sample was selected with a statistical representative sample based on electoral lists and Agricultural Register to municipalities, to provide a representative sample in terms of age and income groups.

The results from the interpretation of this data set have led to a research report.

3. Result and Discussions

Physical-geographical characterization. Located in the southern county of the Plain Baragan Mostistea, common Dorobantu is located 36 km from the county seat and 35 km from Oltenita. City consists of three villages: Dorobantu, Varasti and Bosneagu. It is bordered to the east of the village Ciocanesti, south of the Danube valley, west of the village monastery, which is separated by Mostistea Valley and north of the village Ulmu. The village is crossed by DN 31, Bucharest-Oltenita, Calarasi, and DJ 304. In the north of the village is located Varasca forest, the area is 1380 ha. Representing an area of interference of fauna and flora which gives a touch of special landscape. Vlasiei forests are symbolized today by oak, elm trees and the forest acacias Varasca or those of willows, poplars and hornbeam Boianu near the former lake and the Danube, all existential maintaining the heritage village. These forests are represented by a specific fauna consists of animals such as boars, deer, foxes, hares, field mice, hamster, Gopher, and of birds such as pheasants, crows, sparrows, starlings, larks, wood peckers, blackbirds, nightingales, etc..

Surface water and groundwater. The hydrographic network of the village is composed of: the Danube River, located south of Dorobantu, parallel with a radius of 8 km; pool Andolina, which lies between the villages and Varasti Dorobantu; Mostistea lake, which forms the boundary between village and village Dorobantu Monastery, Old canal, located in southern villages and Varasti Dorobantu, navigable channel Danube - Mostistea Lake, with a length of about 12 km. The total area of existing lakes in the village is 975 hectares, of which 25 acres are landscaped as a fisherman.

Figure 1: Structure of village land Dorobantu, categories on use in 2011

Source: National Institute of Statistics

Economic environment. Agricultural activities. By applying the Land Law, 12 companies were founded with legal agricultural dealing with agricultural land. Farming village, as shown in Figure 1., is based on the land, with the following structure: arable land - 7215 ha, pastures and meadows - 195 ha, vineyards - 61 ha, 1496 ha of forest, construction in progress – 1142 hectares. The arable land is cultivated mainly corn, wheat, barley, sunflower and to a lesser extent beans, peas, soybeans, sugar beets, potatoes, vegetables, melons, etc.. Livestock of the village consists of 300 cattle, 1,700 swine, 2,000 sheep, 200 goats and 330 horses.

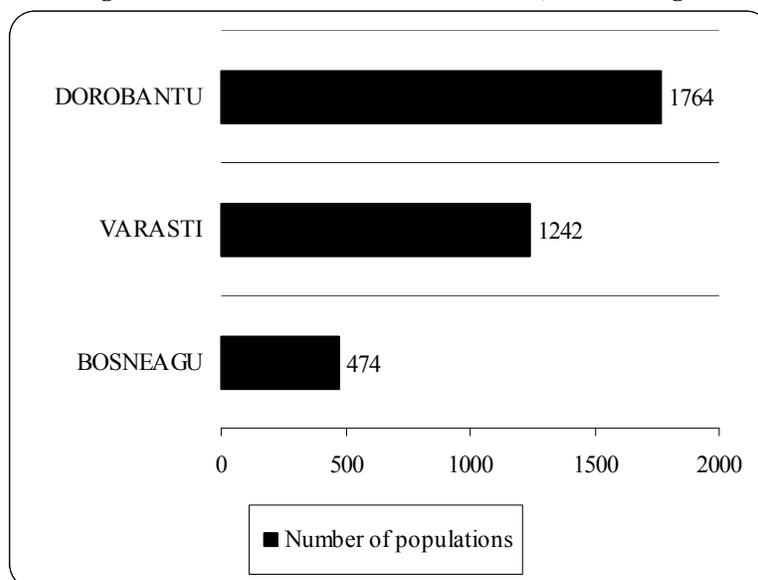
Industrial activity and construction type. Dorobantu village, a village activity is mainly agricultural, single most important industrial activity is related grain mill (wheat and corn), serving as a high capacity and neighbouring villages.

Commerce and services. Village economy is dominated by the work of 34 companies, three family associations, 19 people and 2 independent joint stock companies predominantly oriented to the trade, catering, fishing, cereal farming and service activities.

Of all respondents in the village Dorobantu, even if they live in rural areas, 37.12% have no land, and those who owned land - 43.35% chose his rent. There are -7.75% and category of respondents who do not have land, but have rented. Of sociological inquiry based questionnaire applied, that the income of rural inhabitants is low, reaching only for essentials - 30.82%. Of the total respondents, 26.32% stresses that not enough income for basic needs. There is also a category of respondents - 4.51%, stating that their income is sufficient to buy what they need without restriction from something. Household income for the vast majority of respondents from wages - 58.14%, income from agricultural production is almost zero-4.75%.

Socio-cultural environment. Demographic. With a total population of 3480 inhabitants, the town consists of three villages: Dorobantu, Varasti and Bosneagu. In terms of ethnic Romanian population is divided into 3304 and 176 Roma. The dominant religion is Orthodox Christian, but there are a number of 45 residents and 30 Pentecostal Adventists.

In Table 1 and Figure 2., give the village the population structure Dorobantu, components and sex by villages and in Table 1, age and sex structure of population of the village.

Figure 2: Dorobantu Structure inhabitants, on the villages

Source: Mayor's Dorobantu

Table 1. Population structure by age and gender in common Dorobantu in 2011

Category	Total		which:			
			Male		Female	
	number	%	number	%	number	%
Total	3480	100,0	1676	100,0	1804	100,0
0 – 18 years	826	23,74	408	24,34	418	23,17
19 – 35 years	736	21,15	373	22,26	363	20,12
36 – 45 years	415	11,93	201	11,99	214	11,86
46 – 55 years	443	12,73	213	12,71	230	12,75
56 years and on	1060	30,45	481	28,70	579	32,10

Source: Mayor's Dorobantu

From database presented shows that the distribution of population by sex, reveals little difference (48.1% men and 51.9% women) recorded significant differences by age. Approximately one third of the population over 55(30.45%), falling within the general trend of aging, specific rural area. Fertility rate is higher than the national average. The mortality rate is high.

Total number of persons employed is 1414, the gender distribution was advanced by 1.37% by women. Unemployment rate (8.2%) is around the national average. Only one third of the employees wages, representing 30%of the population engaged in agricultural activities. Industry is also an important sector, covering a quarter of employees. About 40% are employed in other sectors such as public administration, trade, transport, education.

Almost half of those polled - 48.12% believe that young people leave the city to find a job, but 45.37% stated that young people can make sense in life, just went to another country. Of all respondents, only 5.51 are those with children, or them selves, remain common. Most respondents have children -

79.19%. 62.91% of those surveyed believe providing a better life for children is the city, while 30.83% think we should leave the country.

Education and learning. Education sector is represented by six schools (three schools and three kindergartens), where nearly 380 children are enrolled, of which: preschool - 120 students - over 260. The teaching takes place only in Romanian and teaching and teaching is provided by 28 teachers.

Table 2. Population of 10 years and over, after the school completed in common Dorobantu in 2011

The school graduated	Number of people	%
Superior long-term	127	4,43
Post-secondary and foremen	252	8,79
Secondary	587	20,48
Vocational and apprenticeship	612	21,35
Lower secondary (gymnasium)	594	20,73
Primary	484	16,89
No school graduated	210	7,33
Total common	2866	100,0

Source: Mayor's Dorobantu

Population structure according to the school completed by 2010, is presented in Table 2. It is found that 16.89% of the total inhabitants have completed primary education and 20.73% are graduates of education gymnasium. Only 7.33% of the inhabitants had not completed any school, a situation rarely seen in rural areas. The fact that about 34% of the total village population has secondary education, post secondary and university education that the citizens Dorobantu village is relatively good.

Educational level of training of respondents in the survey on the perception of living conditions in rural areas is high. Of these 38.60% have secondary education, 20.05% are vocational school graduates, 18.54% are college graduates and 20.79% less than 8 years.

Culture and sport. In terms of cultural institutions, the town has only one municipal library. Sports activities are conducted through the Association "Athlete Dorobantu". Villagers celebrate Harvest Day on October 25 and Day village in an attempt to recognize the rural community, of identity. Mains water and sewerage. Dorobantu village only some citizens have access to the water, which is under development, but the public are arranged several wells.

Infrastructure of electricity, heat and gas. All households have electricity and there is street lighting.

Communication infrastructure. Communication infrastructure is developed there: Cable TV, Internet, fixed telephony, mobile telephony signal, the headquarters of the Romanian Post.

The number of people, quite satisfied with their living, is equal to the ones, not too happy,, - 37.19%. Of all respondents, only 4.75% are very satisfied with how they live. Of all subjects, 42.80% are satisfied with the municipality where they live, 43.6% are dissatisfied, and 6.26% are proud to live in the commune. Public services face 13.96% are satisfied with roads leading to town water supply 14.16%, 11.09% of street lighting, health care 13.42%, 12.81% school and home culture . Roads to only 9.54% are satisfied with the sewerage 5.42%, most believing that they need the most improvement.

GRANT PROJECTS CARRIED BY CITY HALL AND ECONOMIC AGENTS

Projects in progress

1. Water supply" in villages and Varasti Dorobantu, (cf. OG 7/2006).
2. "Centralized water supply in the village Bosneagu" (according to HG577/1997)

Projects submitted

1. Asphalting streets in villages Varasti, Dorobantu and Bosneagu (MDRT project);
2. "Establishing Varasti village green spaces" (Management of Environment);
3. "Replacing the heating system using renewable energy, including replacing or supplementing conventional heating systems at City Hall and Kindergarten Dorobantu normal program - Sprockets magic" (Adm. Environment Fund-financed).

Developed Projects

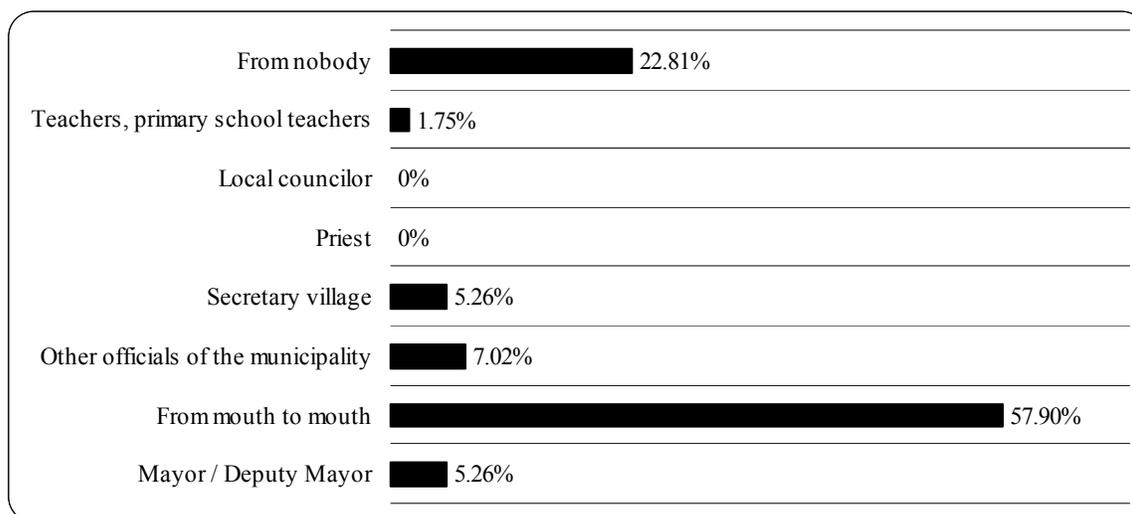
"Paving roads in villages Varasti, Dorobantu and Bosneagu" (financed by the World Bank).

From the investigation that the activities are disseminated to the public hall, information is transmitted orally from villagers - 57.90% (Table 3). If it were primary, 49.12% (Figure 4.) of respondents would provide jobs for citizens of the village, and 14.04% would attract investors. Wishes of people aimed at creating new jobs, only in this way their living standards will raise. When asked whether they participate in implementing a rural development project in their community, 64.91% of respondents do not want to participate in the development of a community project and contribute labour 26.32% (Figure 6.).

Table 3. Question: How are your programs and activities on City Hall?

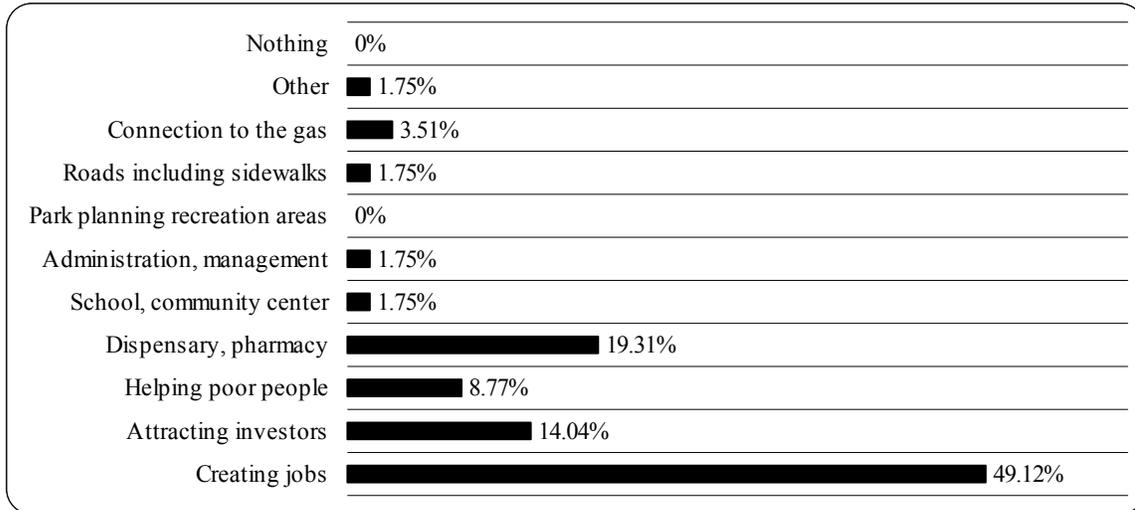
Mayor / Deputy Mayor	From mouth to mouth	Other officials of the municipality	Secretary village	Priest	Local councilor	Teachers, primary school teachers	From nobody
5,26%	57,90%	7,02%	5,26%	0%	0%	1,75%	22,81%

Figure 3. Dissemination activities to the public hall



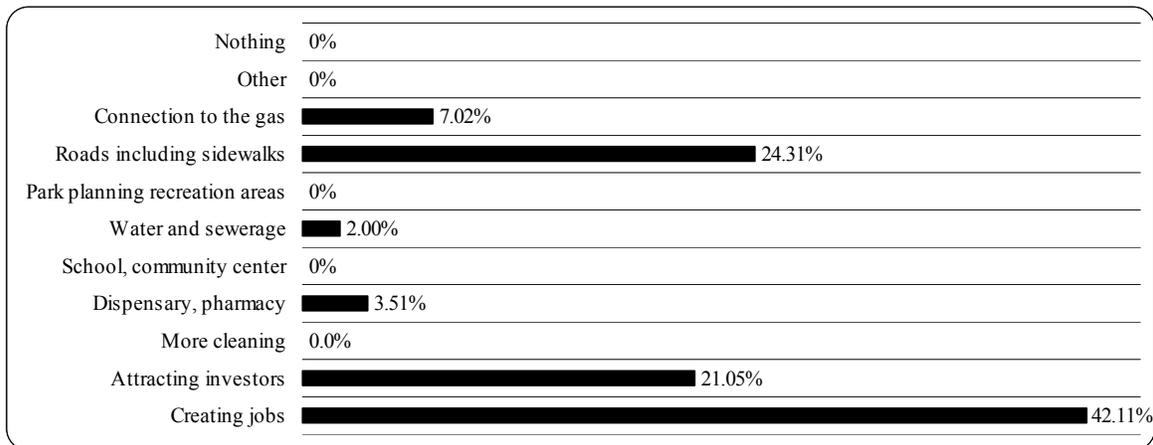
Hall activities are run by people, information is transmitted orally from villagers - 57.90%.

Figure 4. Question: What would you change if you were mayor?

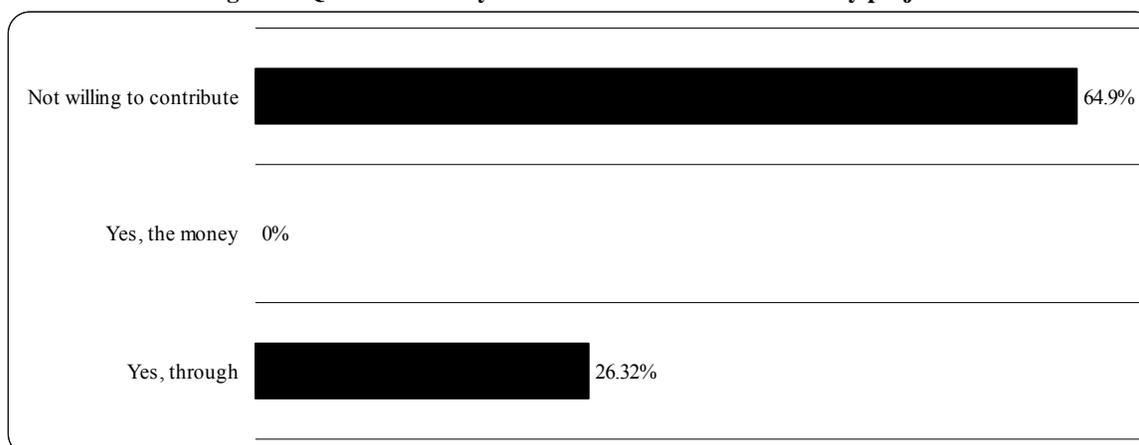


Providing jobs for the citizens of the village is the main desire of respondents - 49.12%

Figure 5. Question: What do you think should be changed in common?



Wishes of people aimed at creating new jobs - 42.11%, only in this way their living standards will rise.

Figure 6. Question: Have you contribute to such a community project ?

On this question, 64.91% of respondents do not want to participate in the creation of a community project.

Last question is about the trials and age of respondent.

Educational level of training of respondents is high, of whom 38.60% were high school and 17.54% are university graduates.

Of those who participated 40.35% are aged between 18-34 years, 38.6% were aged 35-59 years and 21.05% fall in the age group over 60 years.

4. Conclusions

Following meetings with administrative responsibilities and by questioning the villagers believe that active and continuous involvement in the local socio-economic development of communes will gradually increase, with the realization that each resident must be actively involved in community development the locality in which they live.

Impacts expected from implementation of rural development programs aimed at:

- professionalism of farmers;
- lowering the average age of rural population employed;
- equal opportunities between women and men
- expansion of specialized consulting and public awareness of their need;
- emergence of new jobs, stable, implicit unemployment rate in rural areas;
- reduction and / or avoid the risk of depopulation;
- improvement will lead to greater rural civilization;
- increased income and quality of life in rural communities;
- renovation of villages and the potential of natural, cultural and historical;
- awareness, education and empowerment of rural population on the importance of environmental quality;
- real opportunities for the emergence of new activities;
- increase awareness and information quality by diversifying access roads;
- development of farm, forestry and fisheries modern, efficient, sustainable, consistent with Community standards;
- establishment and / or rehabilitation of rural infrastructure;
- Reduce and / or gap between rural and urban areas.

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- *** Statistics Department of Agriculture and Rural Development.

**ENVIRONMENTAL CHANGES AND THEIR EFFECT ON LEPIDOPTEROFAUNA ACTIVITY
IN THE FOREST DUMBRAVA SIBIULUI, ROMANIA**

MOISE Cristina

*Assistant professor, Ph.D., Faculty of Agricultural Sciences, Food Industry and Environmental Protection,
“Lucian Blaga” University of Sibiu, Romania, e-mail: cristinamoise1@yahoo.com*

SAND Camelia

*Professor, Ph.D., Faculty of Agricultural Sciences, Food Industry and Environmental Protection, “Lucian
Blaga” University of Sibiu, Romania, e-mail: camelia.sand@yahoo.com*

TĂNASE Maria

*Associate Professor, Ph.D., Faculty of Agricultural Sciences, Food Industry and Environmental Protection,
“Lucian Blaga” University of Sibiu, Romania, e-mail: marytanase@yahoo.com*

Abstract: *It is believed that Lepidoptera are among the organisms most affected by global warming, which significantly influences their development cycle, reproduction and even survival. Moreover, generations of Lepidoptera are short and reproductive rates are high, so they are likely to respond more quickly to climate change, compared with bodies which have a long cycle life such as plants and vertebrates. Lepidoptera response to climate change: Lepidoptera climate change can manifest itself in changes of distribution (area expansion or reduction of propagation), phenological changes, changes the nature of evolutionary changes in interrelations with other types of organisms Lepidoptera. If Lepidoptera under the influence of temperature increase, reduce development time and adult emergence occurs earlier. Thus, increases during the flight. Research conducted in Romania, in Dumbrava Sibiului Forest showed that an increase in average temperature increase of only resulted 1°C flight period of two to 10 days, especially multivoltine species.*

Key words: Macrolepidoptera, climate change, Dumbrava Sibiului Forest, anthropogenic factors

JEL Classification: Q19

1. Introduction

Human activity on flora and fauna has two sides, one destructive of deforestation, conversion of grasslands to agricultural an unexpected by replacing native fauna to pest species living in some cultures, or chemical pest control measures. The transformation of nature was linked to traditional agriculture began which was to increase agricultural land area that to deforestation, conversion of fields, grasslands into agricultural land, overgrazing and intensive modern agriculture the drainage cultivated land of swamps and chemical treatment. Other interventions are due to industrialization, urbanization, construction of roads and highways, tourism activities.

This paper is modest contribution on endangered species now known from the forest area, anthropogenic factors that led to questioning of Macrolepidoptera species, and the effect of climate change on life and work of this group of insects. Major impact both quantitatively and qualitatively the lepidopteran population that we were able to identify the Forest Dumbrava Sibiului the result of the human factor, that the changes often lead to irreversible changes in work environment. Because of its changes can assist in the relief, climate, vegetation, all of which are in close relation with the environment.

The territory under study, has a tiny share (less than 0.5% of surface), but meets Romania's aspirations to enter the protected areas for biodiversity conservation, assimilating the acquis communautaire and in alignment with European norms and standards in this area in the post-accession imposed by European Union norms. This completes work previously synthesized data collectors who have studied the fauna of the surrounding Forest Grove Macrolepidoptera Sibiu, but also personal data resulting from research undertaken by the author in 2000-2011.

2. Sections

Among the most important anthropogenic influences that have affected over time Macrolepidoptera fauna in Dumbrava Sibiului include forest ecosystem transformation by intensive deforestation over the years and the transition results in agricultural land, especially in intensive grasing north the forest to commune Rasinari, agriculture is practiced in all the surrounding forest, to Cismadioara, Poplaca and near the city of Sibiu. Another effect of antropizarii circuits is altered biogeochemical (carbon, nitrogen, water, chemical compounds sinteza), changing composition of specific flora grasslands from the forest edge Grove, climate change (growth temperature, ozone depletion) which led biodiversity and thus lower the activity of species extinction or periclitaterea of Macrolepidoptera in Dumbrava Sibiului Forest area.

Researched material that underlies this paper is Macrolepidoptera species collected over time in Dumbrava Sibiului Forest, preserve of the entomological collections of the Museum of Natural Sciences Department Brukental Sibiu, but personal data collection and studies between 2000 -2011. By summarizing the data and their analysis showed the level of hazard knowledge of the area studied and default Macrolepidoptera causes that led to it, influence anthropogenic factors and climate change in their life and work (Moise C., 2011).

Results and discussion

Global average temperature has increased by about 0.6°C over the last century (IPCC Intergovernmental Panel on Climate Change, 2001), the 1990s was the hottest (Houghton et al., 2001).

Protected species identified in the Dumbrava Sibiului area, based on the family structure in relation to gender and species is noted that the following families: *Lemonidae*, *Notodontidae*, *Chenuchidae*, are very poorly represented in Forest Dumbrava Sibiului habitat at a rate of 0.62% to genera and species of 0.41% total known species in the study. The proportion of 1.23% in genres which is two types belonging to each family included the following family: *Saturniidae*, *Papilionidae*, with a rate of 1.85% representing three genera belonging to each family: *Lymantriidae*, 2.47% genres *Drepanidae* families, *Thyatiridae*, 3.70% of the families *Pieridae* genera, genera of the family *Hesperidae* 4.32%, 4.54% of genera of the family *Sphingidae*, *Lasiocampidae* 5.55% types of family.

The human activity influences the atmosphere in numerous ways. The climatic regime is the one that suffers the most, because the gas emissions, the modification of the albedo through deforestations or fires, or the overflowing of used waters determines significant changes. In its history, the planet has gone through climatic changes, highlighted by the relation between the solar variability and the glacial periods. These changes depended on the natural causes and had a cyclic manifestation. But there are also climatic changes caused by humans, with a strong negative impact on the greenhouse effect. The consequences of the greenhouse effect refer to the warming of the air with 1,5°C up to 4,5°C, in the conditions in which the CO₂ emissions are doubled in quantity, they then refer to the apparition of seasonal anomalies, through the diminishing of the winter thermic regime. Major climatic changes that took effect over time on the work of Macrolepidoptera entomofauna of Dumbrava Sibiului Forest are: global average temperature rise, changing rainfall amount and regime, quantitative changes in the process of evaporation.

Global warming is the phenomenon of increasing average temperature of the atmosphere on a global scale for several years, in terms of the issue is framed and studied biotope. Currently, there is a consensus that responsible for global warming are increased emissions of carbon dioxide, methane, nitrous oxide and other greenhouse gases resulting from human activity. In the Dumbrava Sibiului Forest emission sources are the vehicles that run on roads that cross forest to do not link with human settlements that forest surrounding villages: Cismadie, Cismadioara, Poplaca, Rasinari, Valea Aurie, residential area found just inside woods behind the Hilton Hotel. At the same recreational areas near the city of Sibiu Zoo, the Museum of Popular Technology outdoors Astra Sibiu. Temperature changes vary both in geographical as well as seasonal, being pronounced at higher latitudes, in the colder months. Macrolepidoptera response to climate change and anthropogenic factors are:

Environmental changes Lepidoptera. Phenological changes in nature are probably the type of response is best documented, as evidenced in a number of organisms, from plants to vertebrates. If lepidopterelor, under the influence of temperature increase, reduce development time and adult emergence occurs earlier. This increases the flight period (Root and Houghers, 2005). Research on

lepidopterelor UK have shown that an increase in average temperature increase caused only 1°C flight period two to 10 days, especially in species monovoltine (Roy at Spark, 2000) In Spain, the emergence of adult butterflies occurred 1-7 weeks earlier with a period of 15 years, and in California, 8 days earlier per decade (at Forister. Spapiro, 2003).

Lepidopteran distribution changes. In general, the climate is an important factor in spreading the Forest Grove area Macrolepidoptera in Sibiu. The changes consisted in expanding distribution of areas of species to cooler areas, located high altitude and longitude, populations of these species as breast reduction in hot areas, low altitude and longitude. According to these studies in North America and Europe but researchers have found changing the area of these lepidopteran species are moving north and at high altitudes, as a result of the heating process. Intensive research performed over a period of 30 years in the UK have shown that many species of Lepidoptera and area moved north into the warm periods (Table 1).

Table 1. Changes in habitat for species of Lepidoptera (adapted from, Menendez, 2007)

<i>Latitudinal changes</i>		<i>Altitude changes</i>	
<i>Northward extension</i>	<i>Discount south</i>	<i>Expansion up</i>	<i>Reduction down</i>
Order Lepidoptera Europe	Order Lepidoptera Europe	Order Lepidoptera Czech Republic	Order Lepidoptera Sierra Guadarrama, Spania
Order Lepidoptera Great Britain	Order Lepidoptera Great Britain	<i>Thaumetopoea pityocampa</i> Denis and Schiffermüller, 1775, Alpi Italia	<i>Euphydryas editha</i> Boisduval, 1852 America de Nord
Order Lepidoptera Finland		<i>Thaumetopoea pityocampa</i> Denis and Schiffermüller, 1775, Sierra Nevada, Spania	<i>Erebia epiphron</i> Knoch, 1783 Great Britain
<i>Euphydryas editha</i> Boisduval, 1852 North America	<i>Euphydryas editha</i> Boisduval, 1852 North America		<i>Parnassius appollo</i> Linnaeus, 1758 Alpi, Italia
<i>Atalopedes campestris</i> Boisduval, 1852 North America			
<i>Arctia caja</i> Linnaeus, 1758 Great Britain			

Due to climate change researchers from Spain have found that for species of tropical and subtropical no information available on long-term movement of species found in tropical to temperate zones. *Danaus chrysippus*, butterfly-monarch in Africa, was seen for the first time in southern Spain in 1980, after which he gradually began to spread along the east coast, coming to California.

Menéndez et al. 2006 found that 65% of lepidopteran species found in Britain reached the northern and responded differently to climate change. although the number of species has increased since 1990 represented only a third of what is expected.

Altitude changes of the Lepidoptera of areas in central Spain has led to changes in the community. Communities with similar compositions butterfly species moved up to 239m altitude, while thermal conditiile climbed 225 m, which led to a decrease in low-lying mountain species. Few species colonization at these altitudes have compensated mountain species loss. It is estimated that the specific diversity decreased by 90% and is dominated by common species with wide distribution (Menéndez, 2007).

Changes due to human actions. Area Under Study massive deforestation brought major changes to the life and structure lepidopterofauna. It is known that butterflies are the preferred biotopes in forests, forest edges, clearings and bushes in the immediate vicinity of the forests and meadows and glades of forest edge vegetation which is rich in what constitutes support of food for both adults and larvae. With the disappearance of these forests that populate some of these biotopes lepidopterofauna disappeared and some could adapt to these changes. Afforestation also had a negative effect on plant associations characteristic lepidopterofauna of destruction with the introduction of plantations for reforestation and pollution of existing fauna species of insects introduced to these plantations.

Regions bordering the study area are known by tradition for centuries of sheep and large cornutelor. Overgrazing of the population practiced today Rășinari neighboring villages and Poplaca, crossing regularly with a sheep led to the destruction of forestvegetation Grove and transformed it into a ruderalizată vegetation, secondary to most species of Lepidoptera are no longerconditions development. To avoid these shortcomings have been taken to prevent grazing in the forest and avoid by setting up fencing and ditches that prevent access. The action represented the gas pollutants and fine particles of dust, coal takes on different aspects lepidopterofauna: acid rain, destroying vegetation spontaneously, leading to the decline and extinction of many species of plants that are host plants for butterflies and larvae, the accumulation of carbon monoxide atmosphere produce global warming "greenhouse effect" with irreversible consequences on flora and fauna, herbicides, insecticides and chemical fertilizers applied on agricultural landnear the forest pollute soil and plants, with lepidopterofaunei destroy. Also contributing to this chemical pollution and textile factory located in the center of Dumbrava Sibiului Forest on the left bank of the Valea Aurie Stream and forest road crossing due to car exhaust fumes from the gas that cross.

They are especially risk factor for isolated populations and species with small effective population. By turning once Sibiu houses and gardens in Valea Aurie neighborhood blocks that are near Dumbrava Sibiului lepidopterofauna changed and composition, most species once common have become rare today or disappeared entirely. Planning travel to the zoo complex, motel, camping and the Grove Inn near the northeastern city of Sibiu and the establishment of an outdoor museum with an area of 100 ha, located near the tourist complex led to the disappearance of biotopes favorite lepidopteran past. Transport also produces pollution, on the one hand on the other hand chemical noise, pollution of local fauna, which the Forest Grove area is produced by the operation of Sibiu tranvai line, crossing the forest along its full length in the direction northea stand southwest, upgrading access roads parallel to the common line tranvai Rasinari and Cisnădioara common, as are both high traffic access roads to tourist and recreational areas.

Phenological changes and distribution as a result of climate change and anthropogenic influences how lepidopteran species that interact with other groups of organisms. Relationship involving two or more trophic groups (type: plant-insect pollinator) for lepidoptera were most likely to suffer seriousim balances. These aspects have been less studied but we know some examples that illustrate how phenological changes have led to offset periods of interaction between lepidopteran and representatives of other groups bodies-if the relationship between night and butterfly nectar-producing plants, research has shown that butterflies eggs submittedearlier and more quickly returned from migration, and flowering plants ahead infrunzirea host (Visser at. Both, 2005). Lepidoptera evolution took place in connection with parallel evolution of host plants. Lepidoptera coevolution polinivore and nectareous with flowering plants and was an important factor in the evolution of life, and the interrelation between the two groups of organisms have an essential role in achieving cross-pollination and led to the diversity and spread of plant species present.

Changes to the evolving nature Lepidoptera. Until recently, the theory that there are rare genetic changes that occur at the insects, as a result of climate change. It is assumed that the species prefers to move and to change the country spreading, rather than adapt to new local conditions (Coope, 1995). However, it is likely that forces the two types of response is already presented (the distribution and phenology) to train both ecological processes, and evolution. Until there is evidence that present evolutionary changes occurring in local population, to show the population of Macrolepidoptera species In Dumbrava Sibiului. Further research remains to be seen whether such changes will be sufficient to prevent extinction of species Macrolepidoptera of forest perimeter.

Species extinction Macrolepidoptere in Dumbrava Sibiului Forest. In a report IUCN (International Union for Nature Conservation and Natural Resources), published on takeovers of 2004, stipulates that: and if the area studied lepidopterelor alteration of natural habitat in which they work in Dumbrava Sibiului Forest, Macrolepidoptere species exctinctiei is the leading cause of species.

3. Conclusions

Based on data and analysis conducted to date, Macrolepidoptera of forest ecosystem can be considered as bioindicators of changes produced on Forest Grove Sibiu, as a result of anthropogenic climate change and the human factor intervention. Lepidoptera species respond to global warming in a range from phenological changes and distribution, to order evolutionary changes, their response is more

powerful than other groups of organisms, considered typical bio-indicator plants, birds and mammals. The effects of climate change on the population of Forest Grove Macrolepidoptera Sibiu are complex and difficult to quantify at this time. Detect all species in the forest is a very difficult task involving the processing of quantitative data and qualitative spatial and temporal scale relative to a period of time (last 150de years).

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THE ROLE OF TOURIST INFORMATION CENTERS FOR DEVELOPMENT OF RURAL TOURISM IN PROTECTED AREAS

NICULA Virgil

*Associate Professor Ph.D. Faculty of Economic Sciences, "Lucian Blaga" University of Sibiu, Romania,
niculavirgil@yahoo.com*

SPÂNU Simona

*Lecturer Ph.D, Faculty of Agricultural Sciences, Food Industry and Environmental Protection "Lucian Blaga",
University of Sibiu, Romania, simona_spanu@yahoo.com*

NEAGU Roxana Elena

*Assistant professor Ph.D. candidat, Faculty of Economic Sciences, "Lucian Blaga" University of Sibiu,
Romania, popsa_roxy@yahoo.com*

Abstract: *In a society increasingly urbanized, the call for rural areas and its specific lifestyle becomes increasingly stronger. Urban dwellers return to their places of origin and the simple lifestyle of the "old times". These are some of the motivations that led to an increase in rural tourism both in Romania and many other parts of the world. During visits, the tourist is more inclined to personally seek information at different places of contact - especially at transport and accommodation operators, as well as at tourist information centres. A good Tourist Information Centre (TIC) will not work only as office to be visited by tourists, but also as a distribution point of information through local transport and accommodation providers. Even if the visitors are given good information when they ask for further guidance "on the road" to tourist attractions, a good network of brown signs in international format must be provided in order to facilitate the trip.*

Key words: ecotourism, tourist information centre, protected areas, sustainable development

JEL classification: Q01, L83

1. Introduction

The overall policy framework for development and sustainable management of tourism industry in terms of natural and cultural resources is governed by the long-term tourism development Master Plan covering the period 2007-2026.

According to this, several categories of protected areas have been identified in Romania:

- Danube Delta Biosphere Reserve
- 13 national parks
- 13 nature reserves

Their total area is 1.652.403 hectares, which is about 7% of Romanian territory. The Danube Delta has its own Biosphere Reserve Administration. All national parks are administered by the National Forestry Administration (Romsilva), except the Ceahlău Park which is administered by the Neamț County Council. There are only three nature reserves of their total number which are not administered by Romsilva.

Protected areas have a diversity of flora and fauna, many of them are unique and endangered species. Although protection and conservation of these areas is a primary goal of managers, protected areas represent a major resource for tourism as well.

Table 1: Distribution of accommodation units in protected areas

	ha	Accommodation units in protected areas	Accommodation units in the village
Biosphere reserve			
Danube Delta	580.000	106	
National Parks			
Rodna Mountains	46.399	1	58
Călimani	24.041	1	50
Bicaz Gorges – Hâșmas	6.575	5	1

Piatra Craiului	14.800	10	52
Cozia	17.100	3	32
Buila - Vânturarița	4.186	0	50
Jiu Valley	11.127	2	0
Retezat	38.138	5	12
Domogled – Cerna Valley	60.100	39	3
Semenic – Carașului Gorges	36.665	3	13
Nera Gorges – Beușnița	37.100	1	8
Măcinului Mountains	11.321	0	1
Ceahlău	8.396	0	64
Nature reserves			
Maramureș Mountains	148.850	39	27
Vânători Neamț	30.818	2	50
Putna Vrancea	38.204	37	0
Bucegi	32.663	17	225
Grădiștea Muncelului - Cioclovina	38.184	5	3
The Iron Gates	115.655	18	15
Mureș River Meadow	17.166	2	3
Apuseni	75.784	150	600
The Little Pond of Brăila	17.529	1	0
Comana	24.963	1	1
Lower Prut River Meadow	8.247	0	48
Hațeg Country – Dinosaurs Geopark	102.392	27	15
Mehedinți Plateau Geopark	106.000	6	12

Source: Romsilva (National Forest Administration) and the National Authority for Tourism

2. The role of the tourist information centers in the protected areas

Tourist activities can vary from hunting and mountain hiking trips to recreational walking and winter sports. There is considerable potential for increasing the number of visitors in certain regions of protected areas.

Unfortunately, few tourist information centres operate in protected areas, and in these conditions the number of visitors can only be estimated.

Table 2. Location of Tourist Information Centers (TIC) in protected areas in Romania

	Estimate of the number of visitors	Tourist information centers	Information points
Biosphere reserve			
Danube Delta	66.740	4	0
National Parks			
Rodna Mountains	10.000	0	3
Călimani	1.000	0	0
Bicaz Gorges – Hășmas	30.000	0	1
Piatra Craiului	80.000	1	0
Cozia	100.000	0	1
Buila - Vânturarița	1.000	0	0
Jiu Valley	1.000	0	0
Retezat	12.000	2	2
Domogled – Cerna Valley	12.000	1	1
Semenic – Carașului Gorges	13.000	0	1
Nera Gorges – Beușnița	7.000	0	0
Măcinului Mountains	3.000	0	0
Ceahlău	30.000	1	2
Nature reserves			
Maramureș Mountains	6.000	1	1
Vânători Neamț	200.000	1	1
Putna Vrancea	24.000	0	0
Bucegi	1.000.000	0	3

Grădiștea Muncelului - Cioclovina	6.000	0	0
The Iron Gates	10.000	0	5
Mureș River Meadow	2.5000	1	2
Apuseni	300.000	5	4
The Little Pond of Brăila	1.000	0	0
Comana	5.000	0	1
Lower Prut River Meadow	300	0	1
Hațeg Country – Dinosaurs Geopark	8.000	1	0
Mehedinți Plateau Geopark	5.000	0	0

Source: Romsilva (National Forest Administration) and the National Authority for Tourism

In a society increasingly urbanized, the call for rural areas and its specific lifestyle becomes increasingly stronger. Urban dwellers return to their places of origin and the simple lifestyle of the "old times". These are some of the motivations that led to an increase in rural tourism both in Romania and many other parts of the world.

Categories of tourists who practice rural tourism cover a wide range of interests, from the ecotourist who is interested in getting involved in environmental protection and conservation; the agri-tourist interested to experience the lifestyle of rural households; the active tourist attracted to outdoor activities; to more general interests of the geotourist, who appreciate the beauty of landscape, culture and rural traditions.

Recognizing that tourists' spending in rural areas have a significant economic impact, greater than in cities, and that rural traditions, crafts and traditional customs are in danger of disappearing, has inspired many individuals and NGOs to invest time and money in rural tourism. As a result of this activity, many products for rural tourism and tourism opportunities are available. However, there is a limited consistency of product supply and generally a lack of public activities related.

Rural tourism benefits from the fact that many major points of tourist attraction and heritage of Romania are located in rural areas, such as painted monasteries, wooden churches, fortified Saxon churches and Dacian fortresses. The tourism brands of Bucovina, Maramureș, Danube Delta and Transylvania are already known internationally and they involve mainly rural areas. Accommodation structures, tourism operators, as well as specialists in agritourism and ecotourism are therefore well positioned to benefit from the increased interest in rural tourism.

Potential tourism development areas were identified based on tourism resources, access infrastructure and principles of market research. The identified areas are large geographic areas that must be developed as priority areas.

The identified areas have a wide range of attractions able to support the tourism industry during the year.

One of them aims at the organized tour in Transylvania - and it involves the cultural tourism, nature, ecotourism, health and treatment, ski and adventure tourism.

Although they arose from the need to protect sensitive environmental areas and those with scientific importance, national parks and nature reserves have many areas where more visitors and more tourist activities would be welcome. But they must be managed carefully. The reserves have identified many opportunities to expand the existing activities and introduce new ones, especially cycling, water sports and tracking birds and mammals.

National parks and nature reserves draw up development plans, determining the areas assigned for regulation of human intervention and assessment of pressure from potential visitors. Retezat National Park Plan has been hailed internationally as an excellent model. This plan requires improvements of facilities for visitors, such as reception areas, interpretation centers, toilets, markings, signs, observation towers, shelters, etc., as well as promotional activities and close cooperation between the management authorities of parks and local communities.

These development plans combine the environmental conservation with the tourism expansion and they deserve funding grants. These developments will improve opportunities for rural communities in the development of tourism related business activities whether they are located in protected areas or in their vicinity.

3. The role of tourist information centers for development of rural tourism

Information services should be the goal for tourism industry and NTO, in particular all necessary information provided to visitors, travel industry and media, when and where they are required.

During the planning stages before the visits, information can be obtained from NTO branches by mail, e-mail, telephone or direct contact. Direct contact can occur during participation in exhibitions or other events. The Internet becomes more and more the main source of pre-trip information, creating comprehensive, flexible and updated websites being vital.

During visits, the tourist is more inclined to personally seek information at different places of contact - especially at transport and accommodation operators, as well as at tourist information centres. A good Tourist Information Centre (TIC) will not work only as office to be visited by tourists, but also as a distribution point of information through local transport and accommodation providers. Even if the visitors are given good information when they ask for further guidance "on the road" to tourist attractions, a good network of brown signs in international format must be provided in order to facilitate the trip. These can be supplemented with thematic tourist routes to encourage the deviation to special and varied interest areas. A number of local governments work as Tourist Information Centres. There is a limited uniformity of services they offer. Some close early in the evening and in weekends. Neither of them is self-financing or they are partially financing their own activities, so NTO will implement the improvement programme of the TIC through ROP 5.3. European Structural Funds for this purpose.

The main role of TIC is to provide information and promote local tourism products, so that to help tourists to accomplish their visit and encourage them to extend their stay in the area.

It would be appropriate for local governments to establish Tourist Information Centres up to the road, in all important tourist areas in the center of cities and towns, according to orders given by the NTO. However, it would be appropriate for TIC to sell maps, guides and tourist literature and to collect fees for reservations;

TIC has the provider role, supplying the following services:

- Information about tourism products, accommodation and other services
- Assistance in finding accommodation
- Literature on local and nearby tourism products and facilities
- A booking service for accommodation during night, selling tickets to events, etc.

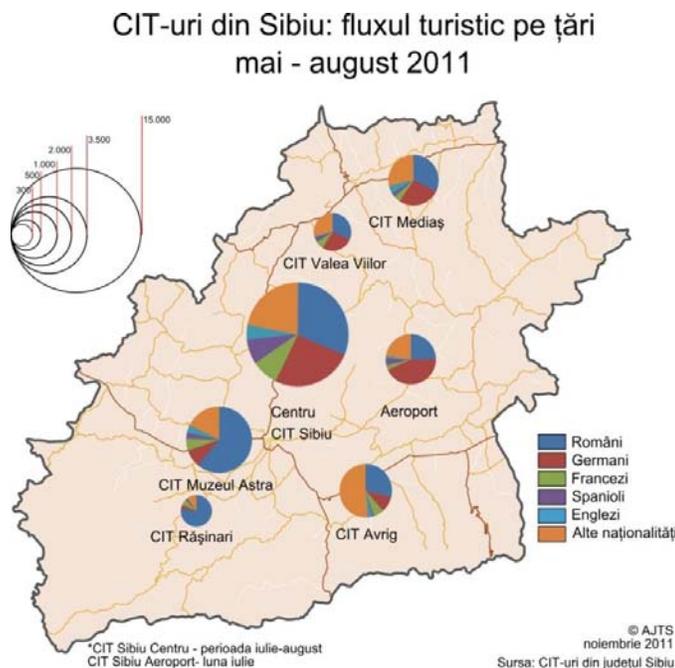
TIC can play an important role in assisting the NTO in relations with media visits and tour operators;

TIC should always provide updated travel information for the database maintained by the NTO.

Tourist Information Offices can develop promotional activities as well, and they can organize local events on behalf of the sponsoring organizations, but NTO will not oversee this activity.

Currently, there are 37 tourist information centres in Romania, plus foreign offices of the NTA.

Figure 1: TICs in Sibiu: countries' tourist flow may – august 2011



Source: TIC – Sibiu, 2012

A town needs a TIC to become a resort according to statutory requirements. Most of the TICs are funded by local authorities. Typically, they are staffed with two employees, who should develop promotional activity. In many cases, this results in restricting working hours.

Basic operational directions of the TIC were prepared in 2004-2005 by the NTA and GTZ, but they should be developed and completed. Monthly training courses of 6 months were held for TIC's staff in 2005, but they have not continued.

In terms of the availability and disclosure of tourist information in each of the tourist centres, there should be a well-equipped tourist information centre, served in a professional manner to provide comprehensive information on attractions, facilities, events, etc., from the region immediately adjacent and about other parts of the country which the person seeking information is intended to visit.

It is essential that interactive audiovisual facilities be the optimal instrument of presentation, while the staff with good language skills and knowledge in the field responds completely and pleasantly to questions.

First TICs appeared in Sibiu and Răşinari.

Table 3 Sibiu County TICs

Place	Address	Phone /Fax	E-mail / website	Programme
Sibiu – historical centre	2 Samuel Bruckental Street, entrance from the Great Square	0269 208 913 0269 208 811	turism@sibiu.ro www.turism.sibiu.ro	Monday-Friday: 9.00 a.m. – 5.00 p.m. Saturday – Sunday: 9.00 a.m. – 1.00 p.m.
Sibiu - airport's new terminal	Sibiu International Airport, 73 Alba Iulia Road	0269 253 999 0269 253 999	turism@sibiu.ro www.turism.sibiu.ro	Monday - Friday: 9.30 a.m. – 5.30 p.m. Saturday – Sunday: 10.00 a.m. - 6.00 p.m.
Sibiu – ASTRA Museum	16 Pădurea Dumbrava Street	0269 202 451 0269 202 411	info_astra@sibiu-turism.ro centruldeinformare@muzeulastra.ro www.muzeulastra.ro	Monday - Sunday: 9.00 a.m. - 5.00 p.m.
Avrig	25 Avram Iancu Street	0269 523 163 0269 523 163	info_avrig@sibiu-turism.ro www.primaria-avrig.ro	Monday – Friday: 8.00 a.m.-4.00 p.m.
Cisnădie	1 Cetăţii Street	0269 561 236 0269 561 236	info_cisnadie@sibiu-turism.ro www.cisnadie.ro	Monday-Friday: 9.00 a.m.-5.00 p.m. Saturday: 9.00 a.m.-1.00 p.m.
Mediaş	3 Piaţa Corneliu Coposu Street	0269 803 885 0269 803 885	info_medias@sibiu-turism.ro mediasturism@yahoo.com www.mediasturism.ro	Monday-Sunday: 9.00 a.m.-5.00 p.m.
Ocna Sibiului	1 Mihai Eminescu Street	0269 541 177 0269 541 177	info_ocnasibiului@sibiu-turism.ro www.primariaocnasibiului.ro	Monday-Saturday: 8.00 a.m.-3.00 p.m.
Răşinari	Sibiului Street	0269 558 022 0269 558 022	info_rasinari@sibiu-turism.ro www.primaria-rasinari.ro	Wednesday-Friday: 9.00 a.m.-6.00 p.m. Saturday: 10.00 a.m.-5.00 p.m. Sunday: 10.00 a.m.-3.00 p.m.
Sălişte	2 Piaţa Junilor Street	0269 553 512 0269 553 512	info_saliste@sibiu-turism.ro www.saliste-sibiu.ro	Monday- Friday: 8.00 a.m.-4.30 p.m.
Valea Viilor	120 Main Street	0269 515 199 0269 515 199	info_valeaviilor@sibiu-turism.ro www.valea-viilor.ro	Monday- Friday: 7.30 a.m.-1.00 p.m. Saturday: 8.00 a.m.-2.30 p.m.
Alţâna Gerendi House	92 Main Street	0742 236 557	altana@mioritics.ro www.primariaaltina.ro	may – september Monday – Sunday: 9.00 a.m.– 5.00 p.m.

Source: TIC – Sibiu, 2012

4. Conclusions

Information on Romania's tourist attractions and facilities provided by websites, guides, brochures, articles, tour operators / travel agencies etc., where the tourist has access when he/she comes to Romania, is complemented by tourist information centers in the country. Creation, presentation and their style of operation and management are part of the future plans of the line ministry.

Tourist information centers are crucial for successful operation of tourist destinations because they offer tourists updated and detailed information about the visiting places, things to see, events they can participate, facilities to be used and modalities of travel in the country. It is essential that:

These centers be centrally located or near main attractions for visitors

The staff of these centers must be sociable, they must have - the ability to communicate in the language chosen by the visitor and be well informed about the region and its tourist resources

Although they are used and administered locally, they should - have a uniform operating and presentation mode so that a visitor traveling around the country in a tournament and making use of several such centres become familiar with them.

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BIOECONOMIC AND ECOECONOMIC ASPECTS REFLECTED IN THE SHEEP EXPLOITATION FROM SIBIU COUNTY

STANCIU Mirela

*Ph. D. Assistant professor, Faculty of Agricultural Sciences, Food Industry and Environmental
Protection/Department of Agricultural Sciences and Engineering of Food Products, Lucian Blaga University of
Sibiu, Sibiu, Romania, mirela_stanciu2008@yahoo.com*

TODERICIU Ramona

Ph. D. Associate professor, Faculty of Economics Sciences, Lucian Blaga University of Sibiu, Sibiu, Romania

Abstract: *Through this work we want to emphasize the increasing size of current sheep exploitations in Sibiu, to highlight localities with the largest flocks of sheep and to analyze the technology farmers apply. Data from the Chamber of Agriculture of Sibiu were analyzed, processed and summarized. For analysing the technologies applied, we developed a questionnaire witch was completed by a total of 30 sheep breeders. In order to highlight the traditional products obtained in the county, we gathered data from Sibiu County Agriculture and the Association of sheep Sibiu.*

Key words: sheep, traditional, products, bio-economy, eco-economy

JEL classification: Q 19

1. Introduction

Sustainable Development Strategy of the mountain states that sustainable development of mountain areas of Romania involves the development and strengthening of family households, in balanced specific ecosystems.

Economically, the main occupation of rural population in the mountains is adapted breeding zones, which generates a range of superior products in terms of their nutritional value, clean air and obtained with low investment and low cost prices due self feeding, and spontaneous polymorphic flora Carpathian pastures and hayfields.

Sibiu county has an agricultural area of 307,974 ha, 116,276 ha is arable land, totalling 107,126 hectares of natural pastures and natural pastures 75,724 hectares (%). This structure shows that farmland pastures and hayfields are more than 59.4% of agricultural areas, hence the huge plant resources can be harnessed effectively by ruminants. In Sibiu there were approx. 70 904 farms, spread over the 53 communes, 173 villages in their composition. (Stanciu Mirela, 1999, p 11)

2. Sheep breeding situation in Sibiu county

The evolution of existing sheep demonstrate that this species has a increased interest in recent years, current livestock hovering above those in 1989.

Table 1: Evolution of sheep effectives exploited in Sibiu area

effectives	year						
	1989	1994	1995	1996	1997	1998	2011
thousand heads	456,9	409,5	399,6	398,9	373,4	387,8	459,6

Source: Stanciu Mirela, 1999, p. 16 și date furnizate de Camera Agricolă a Județului Sibiu, 2012.

Sheep breeding households

The data in Table 2 show that 89.5% (1551) have actual holdings falling between 50 and 500 heads, having a total workforce of 295,724 operating heads (64%), their average accounting for 190 heads / farm, which lies below the county (265 heads / holding upwards of sheep). The explanation is that there are 181 farms in the county that have effective more than 500 heads. In the county there is a farm that grows over 4000 heads of sheep, in Poiana Sibiu.

Table 2: The classification of breeding households ordered by effectives

Effectives number of sheep heads	Number of breeding households	% of total breeders from County	Effectives owned, heads	% of total effectives from County	Average from household
50-100	457	26.39	32493	7.07	71
101-200	497	28.70	73334	15.96	147
201-300	285	16.45	69795	15.19	244
301-400	197	11.37	68663	14.94	349
401-500	115	6.64	51439	11.19	447
501-600	54	3.12	29719	6.47	550
601-700	38	2.19	25260	5.50	664
70-800	21	1.21	16437	3.58	783
801-900	21	1.21	18598	4.05	886
901-1000	14	0.81	14195	3.09	914
1001-1500	19	1.10	29684	6.46	1562
1501-2000	10	0.58	18411	4.01	1841
>2000	4	0.23	11548	2.51	2887
TOTAL COUNTY	1732	100	459576	100	265

Source: data taken from the Agricultural Chamber of Sibiu County, 2012.

Regarding the localities where large herds of sheep are bred in Table 3 shows that the county there are 58 localities with more than 2,000 effective head, the largest flocks being exploited localities Jina, Răşinari, Poiana Sibiului and Tilişca, all recognized for their pastoral economy.

Table 3: Localities in Sibiu county that have more than 2000 sheep heads

Nr. crt.	Locality	exploited effectives, heads	Nr. crt.	Locality	exploited effectives, heads
1	Jina	36961	30	Chirpăr	3410
2	Răşinari	29819	31	Micăsasa	3399
3	Poiana Sibiului	26117	32	Cornăţel	3313
4	Tilişca	22524	33	Bogatu român	3274
5	Sibiu	16729	34	Ruşi	3197
6	Vurpăr	10748	35	Săcădate	3164
7	Alămor	10538	36	Şmig	3080
8	Şeica	9117	37	Şomartin	3038
9	Agnita	8831	38	Caşolţ	2958
10	Slimnic	8674	39	Dârlos	2920
11	Ocna Sibiului	7952	40	Hosman	2862
12	Marpod	7139	41	Mălâncrav	2717
13	Sadu	6934	42	Boiţa	2709
14	Râu Sadului	6245	43	Brateiu	2674
15	Nocrich	6044	44	Cisnădie	2664
16	Nou	5592	45	Mergindeal	2652
17	Şelimbăr	5519	46	Avrig	2601
18	Şura Mare	5482	47	Topârcea	2575
19	Moşna	5426	48	Sălişte	2501
20	Miercurea Sibiului	5211	49	Blăjel	2489
21	Gura Râului	4820	50	Retiş	2451
22	Tălmăcel	4817	51	Brădeni	2445
23	Ţapu	4661	52	Daia	2421
24	Armeni	4551	53	Şoroştin	2364

25	Cristian	4441	54	Noul săsesc	2338
26	Orlat	4440	55	Buia	2248
27	Roșia	4300	56	Fofeldea	2185
28	Alțâna	3921	57	Presaca	2168
29	Păuca	3886	58	Scoreiu	2031

Source: data taken from the Agricultural Chamber of Sibiu County, 2012.

3. Applied technologies

Choosing growth and exploitation sheep sistem was always due to maximum use of hypnotic influences, climatic conditions, biogenetic potential of sheep in boosting the efficiency of their production, but also the opportunity of valuing (Draganescu, 1999).

The widely-flocks of sheep are considered economically on costly investments in buildings or for the establishment and maintenance of cultivated pastures.

Sheep exploited in this system express their biogenetic potential adaptability, breeding and production.

Transhumance peculiarities confers functions like economic, ecologic, livestock, and social development based on biological concept: freshair, self feeding; beneficial accumulation; auto fertilization; autoeficiency; auto-wellbeing (V. Taftă, 2003).

Data analysis snapped after completing questionnaires in 30 sheep farms in Sibiu, the following conclusions:

- Most breeders have training in animal husbandry;
- Most manufacturers inherit the tradition from father to son;
- Evaluate products is as follows:-cheese: Cibin market, Campina, Ploiesti,Bucharest-wool: Bucharest, Campina; -meat: market, stalls;-skins: they sell the 2 euro/pcs through intermediaries centres in SEVIS, then being used as both domestic and foreign;
- Domestic lamb is sold in 8 lei / kg to life and 20 lei / kg carcass, milk from 3 to 3.5 lei / l, cheese is priced between 12-30lei/kg;
- There are producers who pasture personal property, but there are producers who leased pastures. They pay 160 lei / ha;
- Many manufacturers are unhappy with the legislation that obliges them to modernize their forces where capitalizes production obtained;
- Breeding system is generally a closed one, using the only breeding animals made in the area;
- A good sheep gives 1l milk per day, the sheep are milked from Easter until the St. Demetrius (April-October), and production of a sheep is 150l/an. Also from a sheep they can make about 13-15kg cheese / year;
- Manufacturers who sell products in markets have displayed the label show cases specific product name, production date, expiration date;
- sheep from the area of Sibiu have an average body weight 40-45kg, give 4 to 4.5kg of wool / head, 30-35 l raw milk, 13-15kg cheese / head / year.
- Also, we studied the dynamics of the land, the sheep population dynamics, sheep load/ha of agricultural land and pasture, and especially households specializing in animal husbandry. Ruminant and crop production are closely connected. Animals contribute in an important measure to improve crop production and increase its profitability.
- Management and valuing of the mountain meadows and premountain ones, is done in most cases by extensive grazing (free grazing cattle movement), use of modern grasslands (plot, mining enterprises: grazing, mowing, compliance load per hectare depending on quantity and quality of biomass, etc.) are very rare.
- Pastures with a greater load than their productive potential, determine grazing, to laughter, "leading to their degradation by the disappearance of valuable plant species and increase the resistance sunk, insufficient food for animals and low nutritional value, the influence negative impact on milk and meat production.
- Inefficient used pastures by animals which are too small, allowing the development of lush plants, usually those with low nutritional value and productive, resulting in a poor use

of biomass, aging herbs, low nutritional value, appearance of reeds and bushes, the mounds, which ultimately leads to deteriorating grasslands.

Recovery meadows after a program is not well established (avoid grazing mixed sheep-cattle, setting load per hectare in accordance with the production of green mass and quality, etc.). There are areas where meadows are overloaded, which leads to their degradation and insufficient food for animals, which will record the low production of milk and meat. In other areas the load of the meadows is too small, a phenomenon that entails a poor use of green fodder, aging herbs and nutritional decline.

Turcana breed has the largest share in this area. It is a rustic breed well adapted to harsh environmental conditions, weather and disease resistant and better exploit food resources in the mountain meadows. Stogoşa and Turcana breed and have more than half of all the sheep, at national level (ca. 65%). (V. Taft, 2008)

Sheep value the best pastures and meadows in the mountain area. In the climatic conditions of Romania sheep can graze in the mountains with altitudes between 700 - 1300 m, between 90 and 120 days. Grazing is usually completed between August 31 to September 10, depending on weather developments. The slippers, sheep contribute to raising the soils fertility and increase production of green mass. In addition to diversified production obtained from sheep, sheep therefore make a very important branch of animal husbandry.

In general, the food rations consist of green mass during the grazing period, when they don't move, they have hays, and other concentrates when they are close to giving birth, and reproducing. For the most part they are not well balanced and does not provide nutritional requirements at different physiological stages.

In private households, in winter the sheep are bred generally arranged in nearby shelters. There are areas where transhumance is still practiced as a very old tradition. In Sibiu from over 1,700 sheep CREC only May 5 practicing transhumance.

Pastors of Sibiu Mărginime complain they can not comply millenary tradition because they don't have where to go with the sheep, transhumance risking to remain only a matter of ballad. Even small farmers can not see a business of sheep farming. Some of them, even of those who raised sheep from father to son, are trying to sell the herds. Wool, which was a major product obtained from sheep, for several years has no market, which requires farmers to orientate to another product as required by European or even global market. Generally sheep are raised for milk, meat and less wool.

When exploited for meat animals are raised on pasture, traditional technologies, and valued when grazing finishes in September.

4. Traditional and bio certified producers in sheep breeding

In the register of traditional producers in Sibiu are 191 registered producers, of which traditional sheep meat registered 14 people (table no. 4), and the producers who value the products of milk obtained in sheep, 19 people. (Doina Munteanu, 2011, p 339-343)

Table 4: Traditional producers which value sheep meat products

Name	Adress	Traditional products made out of sheep meat
Sterp Ioan	Jina nr. 277	Shepards pastramy from sheep meat, sheep aspic, sheep sausages
Stroie Vasile	Jina nr. 739	Shepards pastramy from sheep meat, sheep aspic, sheep sausages
Bogdan Mioara	Răşinari, str. Emil Cioran nr. 1504	Shepards pastramy from sheep meat, sheep aspic, sheep sausages
Cazan Paraschiva	Răşinari nr. 1449	Shepards pastramy from sheep meat, sheep sausages
Roşca Valerica	Răşinari, str. Emil Cioran nr. 1557	Shepards pastramy from sheep meat, sheep aspic, sheep sausages
Barbosa Lucia	Tălmăcel nr. 144	Shepards pastramy from sheep meat, sheep sausages
Oancea Ioan	Tălmăciu str. Cibinului nr. 58	sheep sausages, Prejba pastramy, shepards chops
I.F. Oancea	Tălmăciu str. M. Viteazu nr. 66	Shepards pastramy from sheep meat, sheep sausages
Ciorogar	Tilişca nr. 315	Shepards pastramy from sheep meat, sheep aspic, sheep sausages

Dumitru		
Dănese Ilie	Tilișca nr. 115	Shepards pastramy from sheep meat, sheep aspic, sheep sausages
Micu Gh.	Tilișca str. Vale nr. 414	Shepards pastramy from sheep meat, sheep aspic, sheep sausages
Popa Dumitru	Tilișca str. Iugești nr. 276	Shepards pastramy from sheep meat, sheep aspic, sheep sausages
Prică Maria	Tilișca str. Școlii nr. 497	Shepards pastramy from sheep meat, sheep aspic, sheep sausages
Zeicu Petru	Tilișca str. Iugești nr. 259	Shepards pastramy from sheep meat, sheep aspic, sheep sausages

Source: The Agriculture direction Sibiu and <http://www.produsetraditionalesibiu.ro>

In 2009 Sibiu Special Register of traditional products included 206 products, of which 37 dairy products, 3 soft drinks, meat 35, 124 bakery, two products canned vegetables and fruit, a product from honey category, 4 alcoholic beverages.

5. Conclusions

Sheep in the county of Sibiu, is a traditional activity, many centuries, the basic activity of Marginimea Sibiu area, next to traditional farming is practiced on processing activities with a strong local specificity (cheese, clothing, crafts, tools processing (inventory items of tin, furriers shops, traditional hat, fabric shops, etc.).

Sheep breeding in particular included a mandatory period of transhumance, which takes various forms from one place to another, depending on the number of animals owned by breeders and economic and human possibilities.

In general livestock especially in Sibiu Mărginime is a family business, inherited from ancestors and families held by specific principles. Changes in land ownership led to changes in the sheep, both technologically and economically. This requires a new approach to technical and economic, depending and according to market requirements, veterinary and European competition.

Sibiu County ranks second in the country in terms of number of sheep. In Sibiu there are about 459000 sheep, the same number as people living in Sibiu county.

In general, the breeding system in the mountains is the short pendulum, with wintering hays based natural and use the summer mountain pastures higher floors, the herdsmen, sheep pens of sheep or mixed farms. This breeding system, causes a high quality meat, milk and cheese, although yields obtained are low.

Pastors of Sibiu Mărginime complain they can not comply millenary tradition for they have no where to remain with the sheep. No small farmers can not see a business of sheep farming. Some of them, even of those who raised sheep from father to son, are trying to sell their heard.

When exploited for meat animals are raised on pastures, traditional technologies, and capitalized at the end of grazing in September.

In the future there is the assumption that traditional products can be better exploited by better promoting in fairs and exhibitions in the field.

Milk obtained is intended mainly as cheese processing and bellows, for home consumption and sale on the open market.

In Romania mutton consumption is very small as for the growth of sheep for meat appears to be an unprofitable action, other than turning to export youth fattening on pasture.

In Sibiu there are several associations of sheep and all face the same problems: market sales, grants and productive breeds, etc. If you want to stay on the European market in this sector, they will have to find quick fixes. With all the issues raised, there are breeders in the county who have achieved performance by increasing the number of pure-bred race of Turcana or Tigaie, and a cross-bred sheep Turcana and Tigaie with Schwarzkopfbreed rams to improve carcase quality.

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THE ECONOMIC IMPACT OF CUSCUTA: DAMAGES AND USAGES**TĂNASE Maria***Associate professor Ph.D., Faculty of Agricultural Sciences, Food Industry and Environmental Protection,
University "Lucian Blaga" of Sibiu, Romania, maritanase@yahoo.com***SAND Camelia***Professor, Ph.D., Faculty of Agricultural Sciences, Food Industry and Environmental Protection/Department of
"Agricultural Sciences and Engineering of Food Products", University "Lucian Blaga" of Sibiu, Romania,
camelia.sand@yahoo.com***CIORTEA Gligor***Professor, Ph.D., Faculty of Agricultural Sciences, Food Industry and Environmental Protection/Department of
"Agricultural Sciences and Engineering of Food Products", University "Lucian Blaga" of Sibiu, Romania,
gligor.ciortea@ulbsibiu.ro*

Abstract: *Many dicotyledonous weeds serve as hosts for Cuscuta. Such plants can support Cuscuta on road-sides, field borders, and other non-cropped areas, as well as within fields of non-host crops. Weedy hosts have two significant economic effects: not only can they perpetuate and even amplify the reservoir of Cuscuta seed in the soil during years in which non-host crops are grown, but they also serve as a first attachment site for Cuscuta seedlings. Much of the information found in literature refers to the medicinal – toxic properties of Cuscuta, as well as to its role as food for humans, as a research tool, as well as a natural dyer.*

Key words: Cuscuta, parasitism, host crops, uses

JEL classification: Q19

1. DAMAGE PRODUCED BY CUSCUTA

Quarantine holoparasitic antophite

Cuscuta species represent the most dangerous quarantine parasitic weeds, not only in Romania but in most of the countries with a warm and temperate climate.

According to the peasants' old beliefs, Cuscuta was produced either by drought, humidity or by means of natural dung. Due to the fact that there used to be no information on its genuine morphology and parasitic biology, it was believed that this weed survived because of some miraculous roots, solidly fixed in the ground and only difficult to observe.

Because of the damage it produces, Cuscuta has been an interesting research topic for botanists and agro-phytotechnicians since the 18th century; and in the 19th century in the so-called 'un-dodder' resorts several technical methods for the cleaning of the different Cuscuta species seeds were invented.

There are several characteristics of Cuscuta that can explain the plant's adaptation to parasitism: an enormous fertility, up to 10 000 seeds on a single plant; a long period of subsistence in the pursuit of a host-plant; a long and echeloned germinating ability, due to the phenomenon of tegumentary inhibition, etc. Among its peculiarities the following ones are noteworthy: the lack of a cotyledon; the presence of chlorophyll in all organs of the plant, except for the root; and in spite of this its incapacity of photosynthesis unless the atmosphere is enriched with carbon dioxide; the lack of a meristem as well as of a root cap, which determine an exclusively upward migration of the assimilates; the resistance of haustoria within the host plant while the stalks of the parasite are dead – haustoria that can regenerate the plant, thus enabling its perennial nature.

Parasite on perennial leguminous forage

Due to the fact that certain rules of phytosanitary quarantine have not been obeyed, Cuscuta has been spreading continuously on large surfaces, the seed reserves in the soil thus increasing by the year. Besides the damages produced in the perennial leguminous forages, Cuscuta is also often found on grass lands, having a negative influence on the decorative and touristic aspect of the landscape (I. Bobeș, 1983).

Although it parasitizes a large number of plants, the most significant damages produced by *Cuscuta* are those on the perennial leguminous forages, such as alfalfa, clover, cockshead, fingers-and-thumbs, as well as on the sown and natural grass lands.

Further host plants

Besides these cultures, it also parasitizes other leguminous plants, such as: onions, scallions, tomatoes, carrots, spinach, etc.; textile plants: flax, hemp, cotton; industrial plants: potatoes, beet, etc.; as well as ruderal plants, close to railways and irrigation canals. Furthermore, *Cuscuta* species also occur on wooden essences, such as willows, acacia trees, poplars, blackberry trees, etc.

Unless control measures are taken, *Cuscuta* will spread extremely quickly, the production of cultivated plants thus being reduced by up to 90% or even 100% (D. Hălălău & al., 1980).

According to our research, there is no leguminous forage culture which is not affected by *Cuscuta*.

Vector for viroses and microplasmoses

Besides causing a decrease in production, *Cuscuta* is dangerous also because of its toxicity, since it contains substances which are harmful to the health of animals, thus deprecating the quality of fodders. Moreover, *Cuscuta* enables the transmission of certain viruses of the trifoliate, the viral chlorosis of the sugar beet, potato viruses, etc.

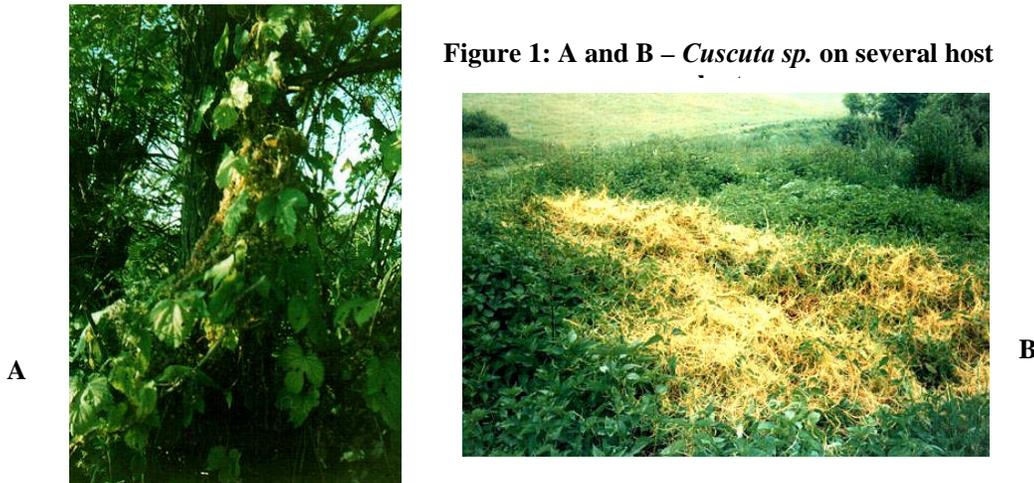


Figure 1: A and B – *Cuscuta sp.* on several host

Source: original

Spreading

Cuscuta species have an extremely efficient spreading power by means of their seeds, which are numerous, exceptionally fine and which conserve their germination in deposits for a period of between 10-12 years, or even up to 40 years (FNAMS, 1995), whereas in the soil and muck for up to 5-6 years. They also spread in a vegetative way, by means of filaments or filament portions which can be disseminated through animals or people walking in the grasslands and in the infested cultures. The filaments then fix themselves on the green plants by means of spires. On the interior parts of the spires haustoria come out, which then extract up to 100% of the host plant's sap.

Biodiversity

The most important types of ecosystems affected by *Cuscuta* species are the patological ecosystems. However, according to Fig. 1, a large number of species are host plants for *Cuscuta*, which therefore affects the biodiversity of the ecosystems not only on the process level but also with regard to human society and animal health. The agricultural crop losses are substantial. There have been relatively few studies on the impact of *Cuscuta* on natural plant communities, but in general it seems obvious and self-explanatory that the biodiversity is substantially reduced in those areas affected by *Cuscuta*.

2. USAGE OF CUSCUTA

Cuscuta as food for humans. Even if *Cuscuta* seeds are rather small and usually difficult to find in large quantities, they are picked up and used as food by the Navajo Amerindians, living in the Southwest of the United States (Castetter, 1935).

Cuscuta as a natural dyer. Literature only contains little information on *Cuscuta*'s use as a natural dyer. However, Wyatt (1972) presents *Cuscuta* as a source of indigenous colour for dyers in India, while other authors show that the species *Cuscuta pentagona* contains an excellent yellow wool dyer (Dawson, J. & al., 1994). It appears that when wool is dyed by means of *Cuscuta*, the colour resists for a long time, reaching to up to several years.

Virulent and all-medical properties. *Cuscuta* species have been shown to contain certain substances which are toxic for mammals (Nisa & al., 1985). Therefore, it might be assumed that they are toxic for animals if they occur in large quantities in forages. (Kingsbury & al., 1964). Nevertheless, *Cuscuta* is not mentioned and described as a plant which is toxic to humans (Gilkey & al., 1969; Lampe & al., 1985), being even used in folk medicine due to its components, which have been proved to be of great medical value (Watt, 1972; Nisa & al., 1985; Nemly, 1987).

Some *Cuscuta* species are employed as medicine in India (Watt, 1972), while their seeds are often prepared as a decoction, to be used against affections of the stomach and for blood purification. *Cuscuta chinensis* has anti-inflammatory qualities (Nisa & al., 1985), being used in papilloma and carcinoma treatments (Nisa & al., 1985). Although *Cuscuta* is not counted amongst the most well-known medical plants, impressive quantities of *Cuscuta* seeds are intercepted by agricultural inspectors in the United States so as to be used in folk medicine (Musselman, L.J. Unpublished data, quoted in Dawson & al., 1994).

Medical benefits - *Cuscuta* spp. have long been used in folk medicine (Bork & al., 1996; Srivastava, 2002) and they have been extensively investigated as medicinal plants. *Cuscuta* spp. is an ingredient in a Chinese herbal mixture (*Zuo-gui-wan*), which was reported to **restore ovarian function** in women with **premature ovarian failure and secondary amenorrhea** (Chao et al., 2003).

A different herbal mixture containing *Cuscuta chinensis* Lam. was suggested as a new approach in the treatment and prevention of **postmenopausal osteoporosis** (Xu & al. 2003). **The anti-inflammatory effect** was confirmed in *C. campestris* (Agha et al. 1996) and *C. tinctoria* Mart. Ex Engelm. (Bork & al., 1996). A commercial herbal mixture, Equiguard™, which contains *C. chinensis* was reported to prevent or correct dysfunctional mechanisms that accompany **prostate carcinogenesis** by modulating prostate growth and gene expression (Hsieh et al. 2002). Furthermore, *Cuscuta reflexa* Roxb. is a potential therapeutic source against **diabetes** (Anis & al. 2002).

Moreover, *Cuscuta reflexa*, has **antifungal** (Mohammad, et al. 1984) and **insecticidal effects** (Chavan & al., 1982). In India, *Cuscuta santapau* Banerji & Das has been successfully tested as a **biocontrol** agent against *Lantana camara* L. (Pundir, 1985).

Cuscuta has a high level of flavonoids, which provide it with strong antioxidant properties. It has been found to have positive effects on the reproductive health, osteoporosis and alopecia, which is a type of hormonal-induced baldness. **Alopecia**, or hair loss, is an androgen-driven psychologically distressing condition, which affects millions of men and women. In an article appearing in the September 2008 issue of the "Journal of Cosmetic Dermatology," researchers evaluated *Cuscuta reflexa* for hair growth activity.

Male Infertility

The March 2006 edition of the "Chinese Archives of Traditional Chinese Medicine" documented the damage caused by reactive oxygen species to human sperm and the mechanism by which *Cuscuta japonica* can treat male infertility.

It has been indicated that the intake of *Cuscuta* extract or seeds has beneficial effects in gout and rheumatism improvement. When taken in combination with other medicine, *Cuscuta* renders scab treatment more efficient. Further studies carried out on animals (rats) have highlighted additional extremely valuable effects of *Cuscuta*, such as delay in the forming of cataract, anti-aging, anti-cancer as well as anti-bacterial effects.

Cuscuta as a research tool. *Cuscuta* has been employed as a link between plants in order to facilitate the research of the transfer of pathogenic agents from one plant to the other (Johnson, 1941; Bennett, 1944; Yang, 1979; Raine & al., 1986). Species which parasitize a large variety of host-plants, such as *Cuscuta chinensis* and *Cuscuta campestris* can unite two green plants which are in fact incompatible on a normal basis. Giddings (1947) employed *Cuscuta* as a means to study the transmission

of viruses. Obviously, *Cuscuta* can be used as a research tool in further studies as well. This paper might thus be regarded as an invitation for further research on the topic.

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