

FEASIBILITY STUDY ON SETTING UP AND RUNNING A POULTRY MICRO-FARM RESPECTING THE EUROPEAN STRATEGY OF SUSTAINABLE DEVELOPMENT

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ABSTRACT

Today European Union provides member countries funds for many types of business and in particular for the development of rural environment. In this sense, this paper draws the main steps of a feasibility study for accessing European funds to develop and run a microfarm respecting sustainable development principles imposed by European Union.

The work theme is based on establishment poultry farms in order to achieve and to exploit the production of eggs, of meat consumption and poultry compost marketed as fertilizer manure for crops. Such investment opportunity is therefore evident. According to sustainable development in agriculture, an intensive breeding system is required to produce eggs in the current economic conditions of factory farms and throughout an entire year. One of the objectives of such an investment is to create jobs in agriculture, which contributes to regional development. A rule of sustainable development in agriculture sustains that majority of hens in many countries are reared in battery cages, although the European Union Council Directive 1999/74/EC[14] has banned the conventional battery cage in EU states from January 2012, being also inadequate and expensive. Hens should be raised in halls on permanent bedding.

Developing poultry farms is not only in the interest of new producers in Romania, but also in national interest, because Romania is a strong tipping country with favourable pedo-climatic conditions for poultry and with a rich experience in breeding birds, especially in the production of eggs for consumption, being considered the easiest and most accessible activity in aviculture. Such an investment fits into the National Rural Development Programme, Measure 121 Modernisation of agricultural holdings - Axis of increasing competitiveness of agricultural and forestry sector.

KEYWORDS: *sustainable development, investment, agriculture, project management, European Union, feasibility study, rural environment*

JEL CLASSIFICATION: *Q1, M13, N54, O13*

1. INTRODUCTION

Poultry farming must respect the European Union Standards for environmental protection, birds welfare and sustainable development. One of the main objectives of birds breeding in conditions of sustainable development is to assure a nutrition with a lower concentration of toxic substances in plants.

Romania should pay particular attention to adapting the systems of breeding and exploitation of birds to demands of the European Union. At the same time, it is necessary to protect – wherever

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possible – those characteristics of the birds growth and exploitation that represent competitive advantages in terms of quality products and impact on the environment.

For development of new solutions, it is important to make as many efforts to promote friendly production systems for environment, achievable goal given the fact that the agricultural area of Romania is insufficiently exploited. It is important that various solutions respond to all requirements related to environmental protection, in order to preserve the natural habitat of Romania, often unique in the european assembly. To meet these requirements, the equipment can be upgraded through European structural funds. Farmers and manufacturers should make possible to avoid fundamental errors in housing modernization and construction of new farms, in compliance with animal welfare standards.

Still many eggs produced in Romania come from hens raised into unsuitable conditions, fed up with synthetic vitamins and medications, and nutrients often including colouring agents and genetically modified feed. Genetic traits depend on environmental conditions, their introduction as an improvement in poultry farming increased the market for alternative production.

2. POULTRY FARMING IN ROMANIA

Romania has a long agricultural history, and after the collapse of communism regime in 1989, the development of Romanian agricultural system from today began. Passing to a capitalist system and having acces to European Union with full membership since 2007, the Romanian agriculture picture was challenged to a new environment.

According to Romanian Union Birds Fanciers the most widespread organization form in industrial Romanian poultry production and abroad is vertical integration, from the production of the biological material and to the commerce of the finished product as it is revealed in Florentina Constantin(2012) scientific article, *Economic Performance of Organic Farming in Romania and European Union*.

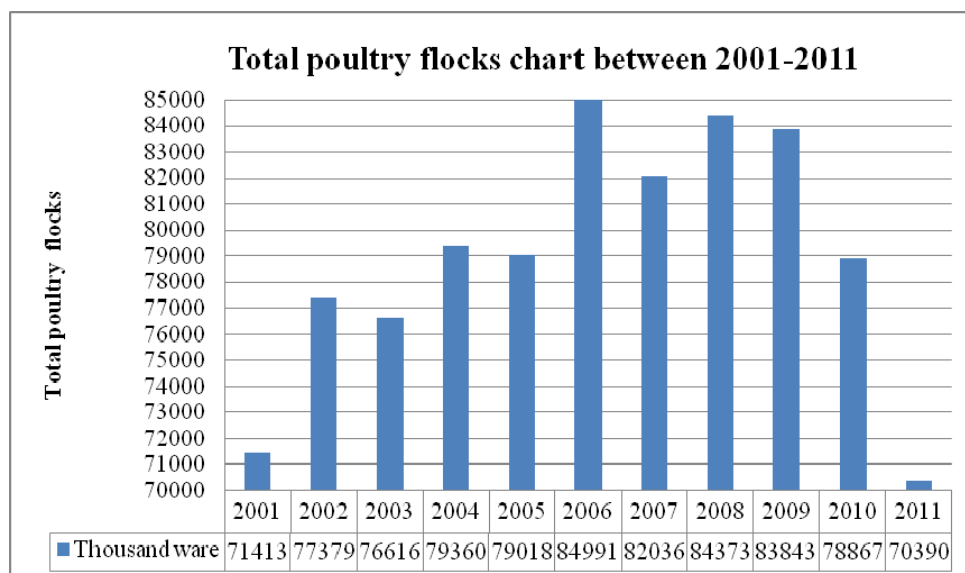


Figure 1. Total poultry flocks chart between 2001-2011

Source: adapted from Romanian Agriculture and Rural Development Ministry, Poultry Farming:
<http://www.madr.ro/ro/cresterea-animalelor/pasari-de-curte.html>

The advantages of this form of organization are:

- better organization of production;
- a good management;
- an easier transfer of technological novelties;
- the practice of modern business.

Another advantage of integrated poultry production system is that it enables the development of small and medium-sized farms, which are based on contract with integrators or work independently, lead to a jobs increase and household income in the regions that develop this activity.

Poultry industry's contribution to regional economic development can be separated into three components:

- direct contribution is evident through creation of new jobs and by increasing population incomes in a particular region;
- the indirect contribution (for example as a individual firm operating within a network of other firms, receiving services of firms and, in turn, providing services to other companies) is reflected on the amount of purchased and produced inputs in the concerned region. More purchased products and inputs in the region will lead to higher indirect effects;

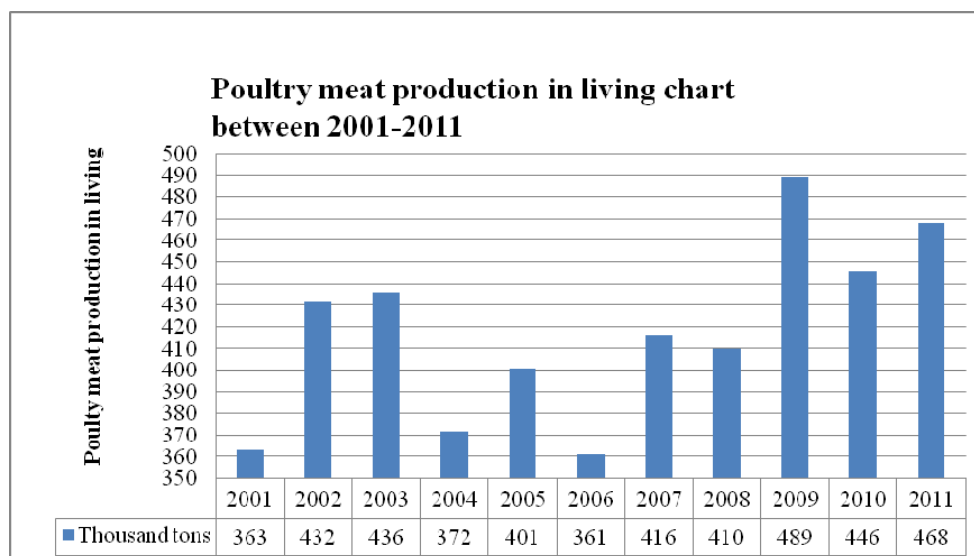


Figure 2. Poultry meat production in living chart between 2001-2011

Source: adapted from Romanian Agriculture and Rural Development Ministry, Poultry Farming: <http://www.madr.ro/ro/cresterea-animalelor/pasari-de-curte.html>

- the induced effects reveal in the new jobs creation, increase the incomes of the population, which means that a larger number of families earn money from poultry farming. When family incomes are growing, the volume of expenditure will increase, which shall be lodged in the induced effects. As conclusion, economic contribution of poultry sector in a region, by extrapolation at state level, is the sum of the direct, indirect and induced effects. By measuring these components separately, it could be determined the multiplier coefficient including production development, added value and increasing number of jobs in the region. Specifically, the multiplication factor is the percentage of region revenue growth in relation to each leu invested in poultry farming (for 1RON invested in aviculture, revenues increase by 0.5RON). When this coefficient exceeds 0.5, it can be appreciated that things are going well in the poultry sector.

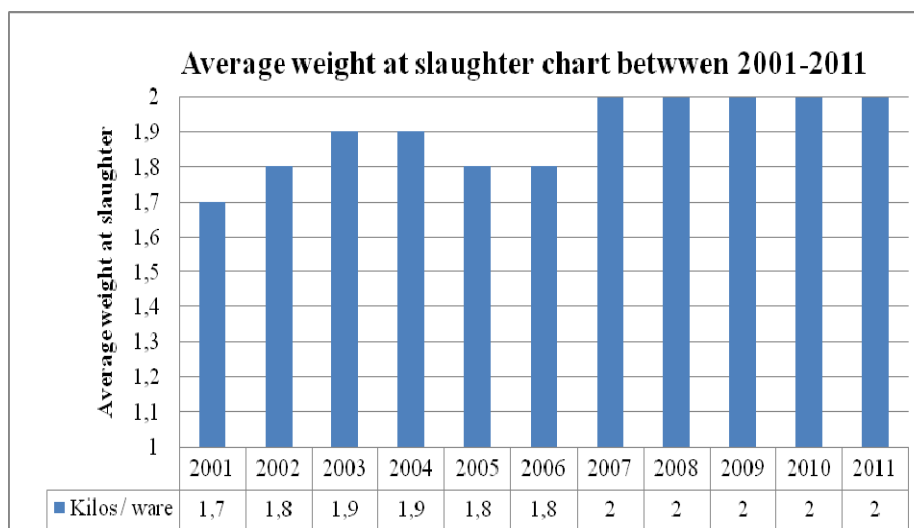


Figure 3. Average weight at slaughter chart between 2001-2011

Source: adapted from Romanian Agriculture and Rural Development Ministry, Poultry Farming:
<http://www.madr.ro/ro/cresterea-animalelor/pasari-de-curte.htm>

The objectives followed by Romanian Agriculture and Rural Development Ministry lead to an unitar purpose to align poultry industry to European standards. These include:

- assure consumption demand from domestic production;
- relatedness of poultry populations and productions to productive yield and requirements to European level;
- streamline the increasing activity with performances similar those to communitary production by compensating the difference between the production cost and the recovery;
- support activities for improvement of poultry flocks creation of new hybrids with superior production performance.

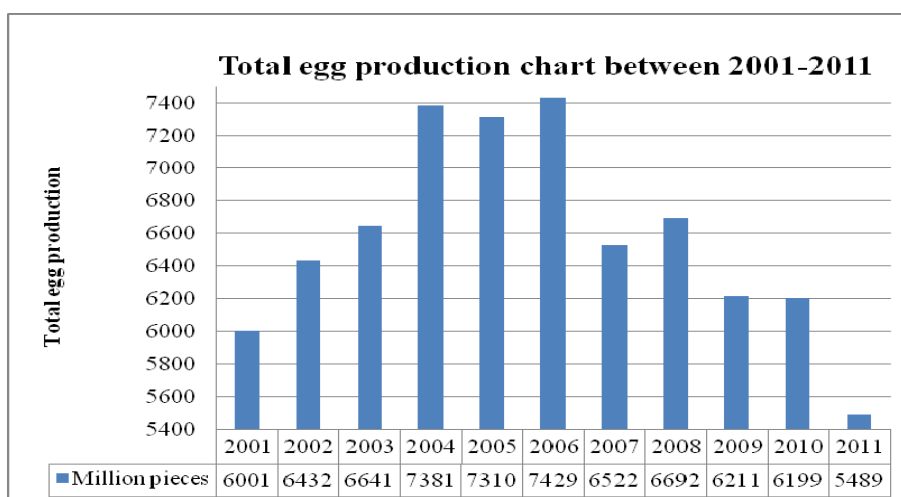


Figure 4. Total egg production chart between 2001-2011

Source: adapted from Romanian Agriculture and Rural Development Ministry, Poultry Farming:
<http://www.madr.ro/ro/cresterea-animalelor/pasari-de-curte.html>

In terms of programm to support poultry meat sector, government has taken following measures:

- improve poultry flocks in order to improve the quality of the bird carcass;
- stimulate competitive and efficient farms;
- increase farmers income who develop activities in the area.
- increase average weight for slaughter.

The rehabilitation and recovery objectives to sustainable development in Romanian aviculture include:

- maintain development rhythm of avicol sector;
- provide population sufficient quantities of qualitative poultry meat at an affordable price;
- financial support of poultry meat production in terms of economic efficiency;
- financial support looking to create a competitive sector in terms of alignment to European standards.

3. ORGANIC AGRICULTURE AND QUALITY MANAGEMENT TO SUSTAINABLE DEVELOPMENT IN ROMANIAN POULTRY FARMING

Ecological agriculture is a term that protected and assigned by the European Union to Romania. This system of agriculture is similar to terms as *organic farming* or *biological agriculture*, used in other state member.

The role of ecological agriculture system is to produce cleaner and more suitable food for human metabolism, in full correlation with environment preservation and development. One of the main goals of organic farming is the production of agricultural and food products fresh and genuine, through processes designed to respect nature and its systems.

In production stage at the farm, it is prohibited the use of genetically modified organisms (GMOs) (and their derivatives) of fertilizers and pesticides, growth stimulators and regulators, hormones and antibiotics. In food processing stage is restricted the use of additives, additional substances and synthetic chemical substances used in the preparation of organic food. Organic agriculture is a major contributor to sustainable development, increasing economic activities with a significant added value and increase interest in the rural areas. This aspect is treated in Flachowsky, Meyer, and Gruen (2013) study, *Plant and Animal Breeding as Starting Points for Sustainable Agriculture*. Objectives, principles and rules applicable to organic production included in the European Commission Regulation 834 / 2007 regarding ecological production and labelling products in this field and in European Commission Regulation 889 / 2008 establishing application rules European Commission Regulation 834 / 2007 are very precise and are considering offering a full consumer confidence in organic products, produced and certified according to the strict rules of production, processing, inspection and certification.

In Romania, control and certification of organic products is ensured by inspection and certification privat legal entities. They are approved by Agriculture and Rural Development Ministry, based on independence impartiality and competence criteria set out in Order 65 / 2010 on rules approval on system organisation of inspection and certification, authorities approval of inspection and certification and activity supervision of inspection entities. Agriculture and Rural Development Ministry approval for inspection and certification authorities is compulsory in accordance with European Standard EN ISO 45011: 1998, issued by an approved entity designated for this purpose.

Whereas the production of industrial poultry from Romania is vertically integrated from the multiplication of poultry to poultry slaughtering and processing meat, at each stage of production, there are checked the following aspects:

- nutritional and organoleptic qualities (taste, smell);
- optical issues (presentation and attraction);
- bacteriological, virological and parasitological security;
- unwanted residues security (medicinal substances, heavy metals, chlorinated hydrocarbons, biotoxins, foreign bodies, pathologic tissues).

Each stage of production is, in essence, a manufacturing process and the quality and efficiency of finished product at level of each production stage depends on the quality of raw materials, personnel training, specific consumption and technology to work with. Quality control starts with control of each stage of production (feed, quality egg for hatching, a day-old chicken quality, feed quality,

etc.) and continues throughout the entire production process. Breeding is done in a completely controlled environment, avoiding in this way the introduction into farms of any pathogenic germ. Poultry establishments, regardless their size, are functionally related to incubation station upstream and the slaughter house or egg collection centre, downstream. As construction, location, technology growth, forage technologies, birds comfort and environmental protection, all farms are the same, regardless their size. Also as health-veterinary authorisation, all holdings must comply same conditions. The advantage of small farms towards larger farms comes from the fact that these are able to maintain a smaller microbism than a farm that has multiple buildings on the same site.

Both small farms and large farms have to be effective. Production performance is determined by the fast pace of chicken growth or a good production of eggs, the low mortality of birds and improved feed consumption per unit of product. Performance means healthy birds. Regarding health surveillance of poultry, all farms that breed birds in industrial system respect the same legislation. Health supervision of birds is done by employed veterinarians or authorised laboratories. Small farms deliver plumping raised and supervised chickens – after the same technologies as large farms, in approved slaughterhouses which comply with animal health requirements and veterinary hygiene – and on the finished product is applied the sanitary-veterinary stamp for checked item.

The set of sustainable development indicators may be a solid background for regular monitoring of progress made in the strategic objectives of sustainable development. The system for Romania is harmonized and congruent with the system of indicators used at European Union level. For poultry sector one of the most important sustainable development indicator is *Share of organic crop areas in the utilised agricultural area*.

Table 1. Agricultural sustainable development indicator table

Share of organic crop areas in the utilised agricultural area											%
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
						0.8	1.0	1.0	1.2	1.4	1.7

Source: adapted from Ecological cultivated surface, Agriculture and Rural Development Ministry, Crop area utilised in Romania, National Institut of Statistics (Structural Survey in agriculture between 2005 and 2007)

In terms of performance, there are very precise standards of feeding, in accordance with the nutritional requirements. The correct feed for broilers must be well balanced from the point of view of content in energy and protein, vitamins and minerals, as well as in the level of amino acids. What is important, is that in our country according to domestic laws, harmonized with that of the European Union, the nutrients are provided by:

- feed grains (corn, barley, wheat);
- protein grains (soybeans, sunflower, fish meal);
- energy (sunflower or soya oil);
- vitamins (industrial and import vitamins);
- mineral (import and domestic mineral).

In Romania are not allowed in feeding:

- protein flour of animal origin, exception of fish flour, which is feed in the first 3 weeks;
- antibiotics for stimulating poultry growth;
- cereals or other genetically modified feed materials.

In Beaumont's (2010), *The European experience in poultry welfare—A decade ahead*, in the past years, several studies were taken in European poultry to identify, characterize and evaluate PSE chicken meat. The main factors taken into consideration to analyse *pale, soft, exudative meat* (PSE-meat) were genetics, season, antemortem factors and slaughtering conditions. As a result, PSE meat can reach up to 40% within a flock during hot climate.

4. INVESTMENTS FUND THROUGH THE NATIONAL PLAN OF RURAL DEVELOPMENT

With the integration of Romania in European Union, in terms of agriculture and rural development, our country follows the principles of the Common Agricultural Policy, which represents a set of rules and measures aimed to increase productivity, mainly to ensure a fair standard of living of agricultural population, stabilize markets, guaranteeing supply security, providing consumer supplies to reasonable prices. According to the European Council Regulation 1290 / 2005 on financing Common Agricultural Policy, there have been created two European funds for agriculture. In the document regarding the financial allocation for the National Plan of Rural Development, there are specified:

- European Agricultural Guarantee Fund - for marketing measures funding
- European Agricultural Fund for Rural Development - for financing rural development programmes

European Agricultural Fund for Rural Development is accessed since March 2008, after the approval of the National Rural Development Program. Starting from European Council Regulation 1698 / 2005 of 20 September 2005 on support for rural development by the European Agricultural Fund for Rural Development, it was created the National Strategic Plan for Romania, which constitutes the basis for National Programme implementation for Rural Development for the period 2007-2013. Thus, the National Rural Development Programme 2007-2013, drafted by the Agriculture and Rural Development Ministry, details the specific mode in which investments are financed from European funds for agriculture and rural development.

The National Strategic Plan measures take into account the European strategic guidelines, which refer to rural areas. According to the analysis of socio-economic and environmental issues, obtained on the basis of available statistical data, priorities and the directions for rural development, in close liaison with the community's priorities have been established. The National Strategic Plan for 2007-2013 and thereafter by the National Plan for Rural Development have outlined four priority directions (axes) for funding through the European Agricultural Fund for Rural Development:

Axis 1: The axis of the competitiveness of the agricultural and forestry sector

Axis 2: Improving environment and rural areas

Axis 3: Improving life quality in rural areas and diversification of rural economy

Axis 4: LEADER (implementation of local development strategies to improve the administrative level of rural governance)

5. METHODOLOGY RESEARCH

An empirical research throughout European legislation was made to identify the rate of application in the national law in force as respects the Directives and European standards compliance to develop a sustainable agriculture. The problem relating to economic level of the Northeastern region of Romania through setting-up and running a poultry farm was adapted using certain methods, specific tools and techniques of project management. There were identified a number of objectives throughout it can be attained the purpose: capitalizing on the Northeastern area, procurement and technology development, developing job opportunities in the region, implementation of an intensive and ecological system of production, evaluation of final results and compare them with the original objectives. On the basis of these objectives there has been drawn up a plan of activities, so that each target is correlated with the phases and related to activities packages. In terms of financial and economic analysis there were used two major indicators: NPV and IRR, which demonstrate the need for funding this project from European funds.

6. THEORETICAL ELEMENTS OF COST-BENEFIT ANALYSIS IN PROJECTS WITH EUROPEAN FUNDING

In the fifth chapter *Economic efficiency and financial justification of investment projects through extended cost-benefit methodology*, *Investment Management* (Ionita Ion, 2010), the key indicators of cost-benefit analysis are well approached.

Cost-benefit analysis assumes a financial analysis and economic level. The main objective of financial analysis (cost-benefit analysis) is to calculate financial performance of the project indicators (profitability). This analysis is developed in the usual way, from the standpoint of the owner (or legal) of the infrastructure. The method used in the development of cost-benefit analysis and economic financial is the updated cash-flow technique. Financial analysis taken as singular element is not sufficient to identify whether a project is effective from all points of view. Considering that the majority of projects of public utility are not aimed to generate incomes, all financial aspects must be identified or quantified in financial terms, related to their implementation. To identify these issues should be carried out an economic analysis of the project. This economic analysis identifies all elements which lead to the well-being of the region and try to quantify as currency social environmental implications.

The main objective of the economic analysis is to assist in the definition and selection of projects which may have positive implications on the economy at the macro level. Economic analysis proves more useful when it is deployed in an initial phase of the project, to detect in time the negative aspects of the investment project. The economic analysis is based on the financial analysis of cash flows and involves the application of patches to identify all the issues.

The most important efficiency indicators for a cost-benefit analysis are: the net present value and the internal rate of return. Net present value (NPV) indicates the actual value at time 0, to the implementation of a project that will generate future and various income and expenses streams. For financial analysis will be calculated financial net present value for total investment (NPV/F) and to the invested capital (NPV/K). For the economic analysis will calculate economic net present value (NPVE), which must be a positive value. The transformation is based on the discount factor $1/(1+i)^t$ where i is the discount rate and t is the year.

$$NPV(i, N) = \sum_{t=1}^T \frac{Cashflow_t}{(1+i)^t} - \text{Initial Cash Investment} \quad (1)$$

t = Cash flow period

i = Interest rate assumption

Internal rate of return is the discount rate at which the present net value is equal to 0. In financial analysis it measures the ability of the project to generate funds to provide an adequate return for funding all sources used (equity and debt) as presented by Razan Catalin Dobre (2010-2011) in *Financial project management course*. To economic level the internal rate of return must be higher than discount rate used.

7. PROJECT MANAGEMENT ON SETTING UP AND RUNNING A POULTRY MICRO-FARM IN NORTHEASTERN REGION THROUGH EUROPEAN FUNDS

Part of the historical region of Moldavia, Northeastern part of Romania is an area in which history, culture and tradition are present and complement the natural environment, particularly appealing. It was long considered a distant and mysterious area of Europe, today being the eastern border of the European Union and North Atlantic Treaty Organization.

According to Regional Development Plan 2007-2013, the Northeastern part is a development region in Romania created in 1998. Like other regions, it does not have administrative powers, its main

functions are to coordinate regional development projects and to absorb funds from the European Union.

To set up and run such an investment financed through structural funds, first of all it is important to define the need analysis project from geographically, demographic, economic and social point of view. The Northeastern region is not such a developed region in Romania. The regional gross domestic product loss during economic downturn was of 5.6% in 2009 and 3.3% in 2010. Regional gross domestic product intake from the national one represents only 10% (2008-2010), as a result given by Financial-economic analysis of Northeastern Region (2013).

7.1 Need analysis

Given the low economic level present in this region, the goal of this project is to promote an favorable aviculture investment environment and harnessing natural resources through the establishment of a poultry-microfarm for rearing hens, in order to achieve and exploit egg production. The need for investment: in Romania, according to the legislation in force, there are expected agricultural holdings, designed to gradually replace the farmhouses of subsistence, with own consumption of agricultural products.

7.2 Purpose

The purpose and objectives of a project financed by European funds must be clear, concise, realistic and achievable. In this case the such a project would intend to improve the problem relating to the economic level of the area. This problem is highlighted by:

- low representation on foreign investors map;
- high level of unemployment;
- reduced employment opportunities;
- low incomes level in rural households;
- the practice of extensive agriculture in Romania.

7.3 Objectives of a poultry micro-farm

- capitalizing on the Northeastern Region;
- purchases for functional and technological development of the micro-farm;
- implementation of an intensive and eco-system of farming;
- commerce of production;
- evaluation of final results and comparing them with the original objectives.

7.4 Target group

The target group is represented by the locals in the city area of Northeastern region and at national level, which are consumers of eggs and meat.

7.5 Plan activity to set-up and run a poultry micro-farm

1. Project management and administration	5.1.1 Ventilation and cold system purchase
1.1 Project start	5.1.2 Lighting installation purchase
1.2 Coordination activities	5.1.3 Raw materials, materials and significant services purchase
1.3 Project administration	5.1.4 Beds and nests purchase
1.4 Project control	5.1.5 Egg sorting equipment purchase
1.5 Project end	5.1.6 MICRO- FNC acquisition
2. Project design	5.1.7 Watering equipment
2.1 Project team training	5.2 Poult acquisition
2.1.1 Project team members identification	6. Workers employment
2.1.2 Project manager choice	6.1 Ad recruitment
2.2 Poultry market research in Northeastern Region	6.2 Interviews

2.3 Project budget elaboration 2.4 Planning activities 2.5 Activities review 3. Company foundation 3.1 Check availability and reservation name 3.2 Papers preparation 3.3 Submission of social capital to the bank 3.4 Submission to commercial register 3.4.1 Dossier analysis 3.4.2 File resolution 3.4.3 Obtaining proof of set-up 3.5 Obtaining running notices and authorisations 4. Hall construction 4.1 Hall design 4.2 Construction acquisitions 4.3 Actual construction 4.4 Construction reception 5. Business processes acquisitions 5.1 Purchase of equipment for the production cycle	6.3 Candidates selection 6.4 Effective employment 6.5 Workers training 7. Production system implementation 7.1 Hall arrangement 7.2 Equipment installation 7.3 Hall population 7.4 Poultry 7.4.1 Hen maintenance 7.4.2 Veterinary checks 7.5 Egg production 7.6 Unproductive hens slaughter 8. Production commerce 8.1 Product marketing 8.2 Testing products on the market 8.3 Contracts with intermediaries 8.4 Logistics 8.4.1 Sorting and packing eggs 8.4.2 Eggs and meat transport 8.5 Distributors feedback 8.6 Results evaluation
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7.6 Performance indicators for a poultry micro-farm

It is estimated that the project for set-up and run a poultry micro-farm will generate proceeds of the following activities:

- commerce of eggs and meat production;
 - sale of compost as fertilizer
1. Value of the investment, meaning the total amount, will be taken from the project budget
 2. Income from exploitation, meaning revenue from current activity
 3. Operating expenses, meaning expenses incurred from the current activity
 4. Exploitation Result Rate. The result of current business is calculated as difference between value of investment and operating expenses. It must be positive and the outcome rate must be higher than 10% of the operating revenues for the evaluated years in accordance with Annex 2 Feasibility Study – June 2013 for Measure 121.
 5. The period of investment recovery must be a maximum of 12 years. It is an indicator which expresses duration of investment recovery (in years).
 6. The discount rate is 8%, used to update future cash flows for the financial analysis according to Feasibility Study for Measure 121 and Applicant Guidebook.
 7. The net present value must be positive as specified in Appendix 2 Feasibility Study – June 2013 for Measure 121.
 8. The availability of cash at the end of the period (cash flows) must be positive in the foresight years.
 9. The internal rate of investment for financial and economic analysis.
 10. Benefit-cost ratio is a complementary indicator for net present value.

8. RISK MANAGEMENT FOR SUSTAINABLE DEVELOPMENT IN POULTRY FARMING

Possible risk factors that may arise are internal or external in nature. Internal risk factors can be avoided through proper planning on short and long term, while external factors are extremely hard to avoid. Identified risks which may endanger the smooth operation of business activities are as follows:

- external risks;
- strategic risks;
- operational risks

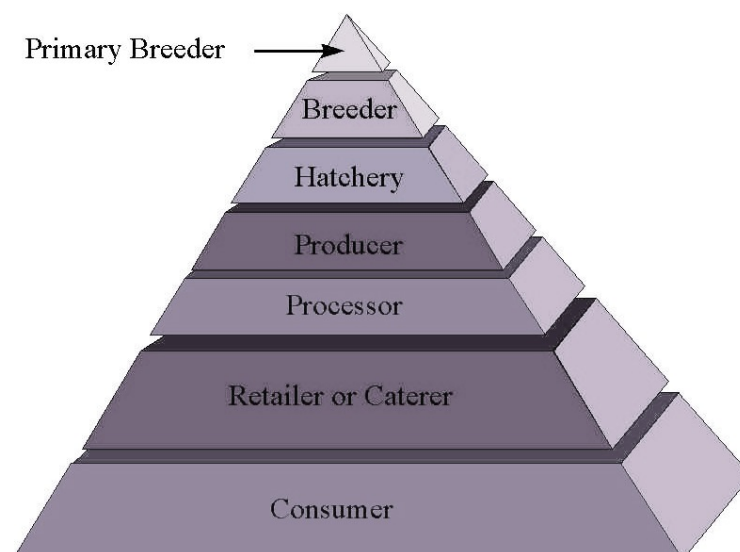


Figure 6. Food production pyramid in poultry farming

Source: adapted from Paul McMullin, Practical Illustrations of risk assessment and risk management in the Poultry Industry, British Veterinary Poultry Association

To prevent these risks, or to deal with any unfavourable situations of this kind, company management will take the following measures:

- keeping a margin of financial resources to cover any unforeseen expenses in the production plan;
- as accumulating profit, reinvesting in the innovation process (working methods, equipments);
- there will be a rigorous documentary on the production process.

Risk prevention actions specific to the production process will be adopted:

- measures relating to employees and / or visitors:
 1. the service staff, even if not in contact with poultry birds, wash and disinfect as well as staff of the farm (shower and change of clothes for people with formalin disinfection for equipment);
 2. after the holidays, the staff of the farm must stay in quarantine for 72 hours (no contact with birds) before coming back to work.
- measures relating to the introduction of foreign materials in farm environment:
 1. materials must be purchased exclusively for the micro-farm activity and disinfected with formalin prior to introduction into the holding;
 2. it is forbidden to reuse materials coming into direct contact with the birds or alluvial fans;
 3. each feed ingredient has its own risk of contamination. Ingredients with high risk are carefully monitored. There are records corresponding to each provider of feed ingredients and create databases of quality control for each vendor.
- measures relating to waste disposal: collection and disposal of dead birds is made by incineration;

Probability	<u>Inherent risk = P x I</u>				
5	5	10	15	20	25
4	4	8	12	16	20
3	3	6	9 Technical and technological risks	12	15
2	2	4 Market risks	6 Human resources risks	8 Financial risks	10
1	1	2	3	4 Legal risks	5 Dependence on new suppliers risk
	1	2	3	4	5
	Impact				

Figure 7. Risks matrix

Source: adapted from Ciocoiu Nadia (2011), Project risk management course

Probability	<u>Inherent risk = P x I</u>				
5	5	10	15	20	25
4	4	8	12	16	20
3	3 Technical and technological risks	6	9	12	15
2	2 Market risks	4 Humans resources risks	6	8	10
1	1	2 Legal risks	3 Financial risks	4 Dependence on new suppliers risk	5
	1	2	3	4	5
	Impact				

Figure 8. Residual risks matrix

Source: adapted from Ciocoiu Nadia (2011), Project risk management course

9. CONCLUSIONS

Setting up a poultry farm contributes to exploitation of natural resources and creating an investment environment. Romania has become a key market in the central and eastern European region. Private enterprises develop poultry farming and must face economic challenges coming from European Union. Romanian producers are exploiting the industry of innovation in agricultural sector. Today Romania has integrated the european market model. Many producers have control of the entire process from breeding to transport and even retail outlets selling their meat. Change of ownership, land fragmentation and dissolution of the big poultry should lead to new concepts of production capacities. A new concept are simple technology solutions for small farms, bringing an extra income to owners, but respecting technological regulations and veterinary field. This type of investment is also able to attract foreign investors, which is reflected in the economic growth of our country.

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- *** European Council Regulation 1698 / 2005
- *** Order 65 / 2010