RISK MANAGEMENT IN AGRICULTURE IN HUNGARY

MANAGEMENTUL RISCULUI IN AGRICULTURA IN UNGARIA

GYULAFFY BÉLÁNÉ[1], DAUBNER KATALIN[1]

[1]Tomori Pál College, Kalocsa, Hungary;gyulaffy.bela@chello.hu

Abstract: *Risk management is a factor of uncertainty linked to production or sales which involves chances of losses. Changes of risks are reinforced because the effects add up and act as a combination. Risk management is a sequence of systematically established, but separated moves. The intensive agricultural production exercises a high level of harmful effects on the environment. To ensure sustainable development ecotaxes are levied by the Hungarian government.*

Key words: *risk, risk management, agriculture, environmental protection, Hungary*

INTRODUCTION

Risks are linked to each other, it is important to recognize and quantify them. Risk management is a sequence of systematically established, but separated moves. The objective of the risk management is to reach a higher level of consciousness and implement optimal decisions.

Land in agriculture is a means of production. Its characteristics are:

- its availability is limited,
- it cannot be moved,
- it cannot be substituted,
- it cannot be reproduced.

Intensive agricultural production exercises a high level of harmful effects on the environment.

We get an overwiew on the level of harmful effects of agriculture on the environment and the system of ecotaxes in Hungary.

RESULTS AND DISCUSSION

"All of life is the management of risk, not its elimination" (Walter Wriston, former chairman of Citicorp)

Grouping of risks

- risks of decision-making
  - probability of making a bad decision
  - assessing the harm caused by a bad decision
- financial risks
  which made up by the standard deviation of financial returns

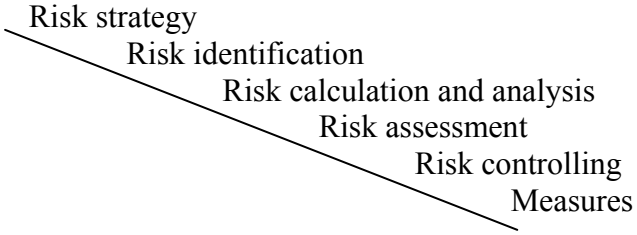
Definitions of risks

- The combination of the likelihood and consequences of a particular event, the environment in which a particular event can be expected (comparing the real and the expected events);
- The level of probability of losses;
- The probability of the occurrence of an event which influences the objectives;
- Uncertainty resulting from planning, the probability of the event that influences the business or project targets;
- A factor of uncertainty linked to production or sales which involves chances of losses;
- Mathematically, risk equals the value of the expected events as it estimates the possible harmful effects.

Changes of risks are reinforced because the effects add up and act as a combination. It multiplies the effects of chemicals since these effects are tested separately producing a significant risk on the environment where a complex analysis and experiments are missing.

Risks are linked to each others, that is the reason why risk management is a sequence of separated moves as it follows:

VARIOUS STAGES OF RISK MANAGEMENT



Some important issues about risk management:

- every organization must have a risk strategy, since there is a risk involved in the likelihood of the expected event which must be addressed,

- it is important to identify the risks which can only take place trough assessment,
- methods of risk assessment and analysis are factor analysis, Monte-Carlo simulation and calculating the break-even point,
- a subjective method of risk assessment is the individual assessment while an objective method is the calculation which uses the risk/benefit or the cost/return variables,
- in the process of risk controlling the controller explores and analyses the differences, links the various professions, interprets the data and discusses the measures to be taken with the managers in charge,
- measures are always taken by the manager in charge.

Types of risks:

- hyper or disasterous risk (there is a need for immediate action, e.g. natural disasters),
- great risk (there is need for immediate action, but it is of smaller scale compared to the previous group of risks),
- medium risk (there is a need for immediate action and change of the plans, strategies, e.g. environmental pollution, explosion),
- low risk (there is no need for immediate action, e.g. changes of tactics or regulators),
- very low risk (it does not pose serious difficulties, there is no need for immediate action, e.g. a device that can be repaired goes wrong)

The level of harmful effects of agriculture on the environment for each type of section

Sections involved	**Level**
Energy	Medium
Air	Medium
Water	High
Soil	High
Waste	Low
Ecosystem	High
Health	Low

According to the table above, intensive agricultural production exercises a high level of harmful effects on the environment.

To ensure sustainable development ecotaxes are levied by the Hungarian government. The system of ecotaxes includes:

- environmental protection product fee, which is backed by Hungarian and EU regulations, it is a source that help to prevent or reduce harmful effects caused by products on the environment,
- environmental impact fee, which is levied proportionately and supports the matter of environmental protection as it aims to reduce the emission of materials and use of energy (air pollution charge, water pollution charge, soil pollution charge)
  - the organization producing the harmful materials pays taxes after their operation,
  - the organization in question pays taxes after the materials emitted
- energy tax which encourages costumers to save energy, it protects the environment as the cost of possible harmful effects on the environment is added to the energy prices (applied to electric power, natural gas and coal).

CONCLUSIONS

The concept of sustainable development means that the current generation should satisfy their need so that the next generation shall not be deprived of the chance of satisfying the same level of needs. The intensive agricultural production exercises a high level of harmful effects on the environment. It is important in the production to combine the market demand and the profit to be made while the land must be reserved in its due state during the process of farming. Soil must be conserved by various activities every year. It can be achieved by the use of chemicals, microorganisms and natural additonal materials. The most important requirements for the reproduction of the soil power are: it should produce enough yield, it should be economical and it should not harm significantly the environment because the effects of chemicals are multiplying. The system of ecotaxes tries to protect the environment.

BIBLIOGRAPHY

1. **FARKAS SZILVESZTER-SZABÓ JÓZSEF**, 2010, A vállalati kockázatkezelés kézikönyve, Dialóg-Campus, Bp.,-Pécs, 254 p.
2. **FEKETE ISTVÁN**, 2009, Folyamat alapú működési kockázat-felmérés – kockázat-elemzés alapú belső ellenőrzés, Egészségügyi Szemle, 47. évf., 6. sz., pp. 1-10.
3. **GYULAFFY BÉLÁNÉ DR.**, 2006, Globalization and Regionalization – Financial Trends and Risks, 131 p.
4. **ILLÉS IVÁNNÉ**, 2010, Kockázatmenedzsment, oktatási segédanyag, BGF PFSZK, 60p.