

## Environmental sustainability among young farmers in the Homokhátság

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### Introduction

In our research, we pay special attention to the young farmers of Homokhátság (the Sand Dunes) area of the Danube-Tisza interfluvium: We assume that they have to deal with special problems that are particularly characteristic of this region. The phenomenon of aridification, a characteristic of this area, is a problem that appeared decades ago in the 1960s and has since become more noticeable. Based on a survey among young farmers in the Homokhátság area it can be stated that less is the priority of animal husbandry, use of water friendly technologies and adaptation to market needs they face with.

### Materials and methods

The Sand Dunes cover an area of approximately 10000 km<sup>2</sup>, which includes 117 settlements. Summarizing the environmental, economic and social challenges of the region, Csatári (2009) draws attention to the need to assess the problems of the region with a systemic approach.

Our main question was: How do young farmers judge compliance of their own enterprises in terms of environmental and economic sustainability (development)?

The results of my empirical analysis were mainly based on surveys questionnaire and personal interviews. We have personally contacted the owners in the Homokhátság under age 40, so we total we visited 124 young farmers. The interviewees were selected using snowball method. Questionnaires were distributed and interviews were conducted between October 2016 and March 2017. The data was evaluated with SPSS. Using the cross-table analysis we examined the following relationships, see Table 1.

Table 1: Questions of the cross-table analysis

1.	agricultural education of farmers	environmental sustainability of farms
2.	form of farming (conventional, eco, mixed, transitional)	environmental sustainability of farms
3.	size of the land owned by the farmers surveyed	economic sustainability of farms
4.	per capita monthly net income of the family	use of renewable energy sources

Source: own compilation, Kőszegi, 2018.

Factor analysis is not a single statistical procedure but a collection of concepts. Clusters were obtained through factors influencing the future of farms and factors affecting the environmental sustainability of farms.

Looking at the environmental and economic sustainability of farms, it can be stated that most of the respondents (77.4%) think that their economy is in compliance with environmental sustainability, 91.1% believe that their economy can develop in the near future, so the

principles of economic sustainability also prevail. During the personal conversations it turned out that farmers who do not consider their farms to be environmentally sustainable are primarily concerned with the problem of water availability, its quality and quantity are both an issue. There was no correlation between the opinion on the environmental sustainability of farms and the agricultural education of respondents.

Of the 124 interviewees, eight are involved in organic farming, and 20 people plan to migrate to organic farming. 95 people do not plan to transition from conventional farming at all. The question “what does the phrase that we have borrowed the Earth from our grandchildren mean to you” proved to be a difficult concept to understand and explain to most of the interviewees. Most of them interpreted it as ‘I am trying to live and manage by it’ and only a few of them understood the true meaning behind it. This also predicts that a change in farming practices is needed as the current practice can not be maintained. The amount of water used is not paid for by farmers, which leads to wasteful practices. Plant diversification and the abolition of monoculture are only implemented in exchange for the grants. There is still no progress in the formulation of attitudes, as in most cases it is the amount of support that matters and not environmental protection itself. It was analyzed the issues of relating to environmental sustainability of farms. During the analysis, the 6 factors have received the names, which define the relationships of young farmers to environmental sustainability. Six different groups were defined, based on their attitudes. Environmental protection measures in the households are influenced by the greening projects required as part of the environmental programs, as well as the cultivation branches, the priority of animal husbandry and adaptation to market needs (Kőszegi, 2017; Kőszegi, 2018).

## Conclusions

Correlation was shown between the issue(s) of economic sustainability and the supply of own machinery and assets. The supply of adequate machinery and assets has a positive relationship with the issue of economic sustainability (development). In the environmentally sensitive Homokhátság the most important problem is perceived to be not the question of aridification. Owners primarily identify labor shortage as the biggest risk that influences future management of their farms. Typically, the majority of farmers do not realize that the current way of farming is environmentally unsustainable. More focus should go on new, smart innovative farming solutions, education. (Maciejczak et al., 2018)

## References

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