Mapping Report on Challenges

HUNGARY

FARMWELL

Improving Farmers' Wellbeing through Social Innovation

Project acronym & number: FARMWELL
Project title: Improving Farmers' Wellbeing through Social Innovation
Project coordinator: E40 Group
Grant Agreement No: 101000797

Deliverable / Work package number: D2.3/WP2
Date: 31/10/2021
Country: HUNGARY
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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000797.

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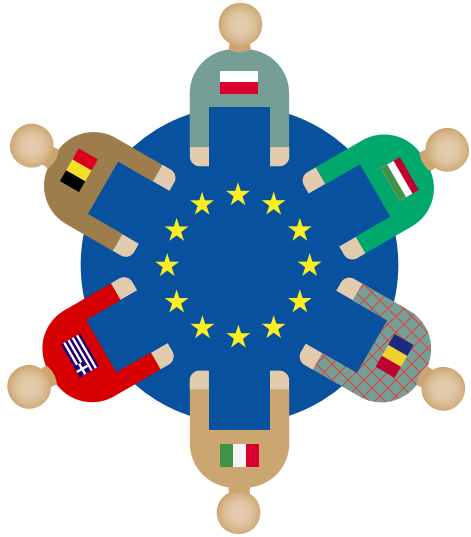
1.
Introduction

This paper is part of a larger Horizon 2020 Thematic Network entitled 'FARMWELL'. This project aims at mapping social innovations in farming and making these social innovations more accessible for farmers and the larger community, with the prime purposes of improving the overall wellbeing of individual farmers, farming households and the larger rural community. With this purpose in mind, 6 European countries (Belgium, Greece, Romania, Poland, Italy and Hungary) have systematically mapped the main social challenges they are being confronted with. Based on this mapping exercise, a set of social challenges have been selected for deeper elaboration and analysis. In addition, a set of social innovations have been mapped that aim at improving the wellbeing of individual farmers, farming households and rural communities.

This research which took place in the first half of 2021 is meant to provide a systematic evidence base upon which social innovations in farming can be analysed further on their effectiveness and made more accessible through innovate communication.



In addition, these papers should enable a productive exchange of ideas and insights between different European countries and partners involved in the FARMWELL project.

This paper presents a case-study on HUNGARY. After this introduction, PART 2 'Methodology/data gathering' will present the main methodological steps undertaken in mapping and analysing these social challenges and innovations. PART 3 'Description of main challenges' will provide a general introduction to the main challenges HUNGARY is being confronted'. In part 4 'Analysis of selected theme(s) in social challenges', a limited number of social challenges is being selected and delved into in a systematic manner and based in primary data gathering. Part 5 then gives a concise summary of the main arguments and insight being put forward in the paper. The paper is finally concluded with a table that provides 10 important social challenges in HUNGARY that have to explicit aim of improving the overall wellbeing of individual farmers, farming households and rural communities.

2.
Methodology/ data gathering

In order to write the mapping report, different steps of data gathering were needed.

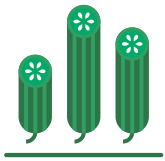
Part 3 and 4 are based on 3 types of data-gathering; those are **literature study/ desk research, semi-structured interviews with 14 key informants** (farmers, policy makers, farming organizations) and **a pilot survey** (filled in mainly by PG members, 15 people).

The literature study provides a general overview of main characteristics of the farming population and the most important social challenges farmers are being confronted with in Hungary. The analysis was carried out on a **national scale and the data and information we gathered is more quantitative in nature**.

Besides scientific references, we analysed and used different **statistical data** originating from the Eurostat or the Hungarian Central Statistical Office (CSO). Results of the **Microcensus 2016 research on subjective well-being** in the areas of mental well-being, health and trust in institutions (conducted in October-November 2016 on a 10% sample of Hungarian households), preliminary results of the **Agricultural Census 2020** and data of the **FLINT project** were embedded.

The CSO's enumeration was an additional enumeration to the Microcensus, which was executed among the population aged 16 or older living at the 10 per cent of the addresses assigned to the census. The questionnaire was completed by more than 50,000 people. For those living in agriculture, the results were sorted separately for the following agricultural occupations (according to the Hungarian Standard Classification of Occupations):

- 1311 Agricultural, forestry, fisheries, hunting production manager
- 2131 Agricultural Engineer
- 3131 Agricultural Technician
- 6111-6230 Agricultural and forestry occupations
- 8421 Agricultural, forestry and plant protection machine operator
- 9331 Simple agricultural labourer
- 9332 Simple forestry, hunting and fishing labourer



Besides scientific references, we analysed and used different statistical data originating from the Eurostat or the Hungarian Central Statistical Office (CSO).

In the framework of the FLINT (Farm Level Indicators for New Topics) project, which developed an indicator system for the effects and sustainability of the Common Agricultural Policy, 1957 Hungarian farmers included in the Farm Accountancy Data Network were interviewed in 2016 in ten comprehensive topics, including working conditions and quality of life.

Certain gaps in the literature were complemented through interviews with experts in the field of

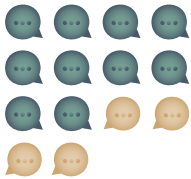
farming/social challenges and farmers. Furthermore, the **data gathered through the literature review were validated partly through the interviews, partly though the first official Practice Group meeting**.

The first official PG meeting (on 22nd June 2021) was preceded by **stakeholder mapping and consultations with stakeholders and an informal meeting on the 6th of May 2021**. At first AKI and MSZFSZ put together a list of potential PG members. It contained a list of 35 stakeholders – female and male farmers, farming organizations, farming advisory services, service providers and policymakers. Some stakeholders were chosen based on previous or ongoing co-operation with AKI or MSZFSZ, some of them were volunteers (who sent e-mails to AKI inquiring about which project they could join), while some others were appointed by the primary addressee (mainly in ministries). We got in contact with them via e-mail or we called them in order to introduce the FARMWELL project and invite them to join the Practice Group. Although some participants agreed at first, they decided not to participate in our meetings in the end. So, we tried to convince a few more potential stakeholders, mainly farmers, but most of them rejected participating due to lack of capacity. That's why the original target number of 20 members decreased, but the ratio of farmers and other stakeholders remained 50-50 percent.

The topics analysed during the first official PG meeting were chosen by those participating in the informal meeting as it served also as a platform to ask the PG members about the relevance of topics. We used the **interactive presentation software** Mentimeter to rank the topics/dimensions of subjective well-being. The meeting was held through the Microsoft Teams application. **At first the findings of the national Basic mapping related to the topics of health, mental health, and personal relationships and trust were presented in 3-4 slides to the participants**, then we discussed these topics. In order to involve PG members to the professional dialogue, different types of questions were used: checkboxes, by which they could choose multiple options; numeric rating scales for evaluating the level of various phenomena; Likert scales for measuring the participants' agreement with certain statements; ranking questions to order elements by their preference; and open-ended questions for channelling the group members' own ideas, opinions, and suggestions. Answering the questions mostly required the farmers' point of view, even from the non-farming group members. The questions and the answers given were supposed to reflect the problems and possible solutions at the same time. Answering a question usually took 5-10 minutes. The results of the answering were displayed simultaneously with the running survey by charts, figures and word clouds. All the topics were followed **by another 5-10 minutes of conversation when the participants could also make comments and react to each other's remarks both verbally and written**

in the chatbox. Each question was presented, and its discussion was moderated by the project member of AKI Nkft who was responsible for the actual topic of the three above. The results were merged into an output document that was sent to the PG members on the 25th of June (PG members had the opportunity to send their further feedbacks on it) and which were further used for completing the basic mapping study.

In order to have a deeper insight into the investigated dimensions and the point of view of relevant stakeholders, semi-structured interviews were organized that can be divided into two subgroups: **10 interviews were conducted with farmers, and 4 interviews were done with other types of stakeholders**. (Some interviews were carried out before the PG meeting while others after it. The interviewed persons were reached personally, online, and by phone. The farmer interviewees weresmall- and medium-scale arable crop producers, animal keepers, horticulturalists, and mixed farmers, one of the latter is involved in social farming as well, thus operates a community garden that is often visited by kindergarten groups.



Semi-structured interviews were organized that can be divided into two subgroups: 10 interviews were conducted with farmers, and 4 interviews were done with other types of stakeholders.

One of the non-farming interviewees works for the government (more specifically the Ministry of Agriculture), another one represented a young farmer organization, and the third one runs a research lab in the field of social sciences. An interviewee, who is located on the border of farming and food industry, was a brewer who does not produce malt but makes craft beer.

The overall experience of the interviews is that it was sometimes difficult to make the farmers talk, they were aloof to discuss the different dimensions of wellbeing, but the interviews planned for half an hour previously, finally lasted an hour or more, because after the first few questions they had so many valuable stories and thoughts that we could not end the interview in a shorter time span.

2.1. Dimensions analysed

Well-being, as a multidimensional phenomenon can be described by a combination of various objective and subjective factors. With regard to the indicator system describing well-being – in addition to adopting the European indicator system – it is expedient to take into account the specificities of Hungary. Based on the collection of the CSO (CSO, 2013; see Appendix 1) and the study of Kelemen and Kincses (2015), ***we examine the following dimensions adapted to the farming communities to describe the Hungarian situation:***

'Material living conditions' (category of physical and social well-being) – The financial situation of the household or the individual within it has several effects on the well-being of people, the well-being of individuals, and the state of society as a whole. The available financial resources affect, among other things, the active, meaningful leisure time, the individual's participation in education, the living environment and quality of the household, and through the influence of all these, the physical and mental health of the household members.

'Working time and leisure' (category of physical and mental well-being) – The existence of the employment relationship, the length of working time, the distribution of working time, the time spent commuting to work determines the amount of free time and can affect whether we use our free time in a cheerful and relaxing way.

'Education, knowledge, qualification' (category of physical and mental well-being) – The dimension of education reflects the education of the individual and society. Education and acquired knowledge have almost indelible effects on an individual's life and quality of life. Its impact on the labour market and income situation is strong. Individual knowledge capital is typically associated not only with higher incomes, but also with more cultural and social capital, a wider range of interests and activities, more active civic behaviour, and a denser network of contacts.

'Health' (category of physical and mental well-being) – This dimension includes an objective descriptive variable for an individual, such as limitation in daily activities due to illness, or a subjective assessment of the individual's own health status, as well as socially measurable data reflecting the state of the health system.

'Mental well-being' (category of physical and mental well-being) – Focuses on the individual's quality of life, measures the individual's mental health, characteristic emotional state, life satisfaction, contains elements of emotional mood.

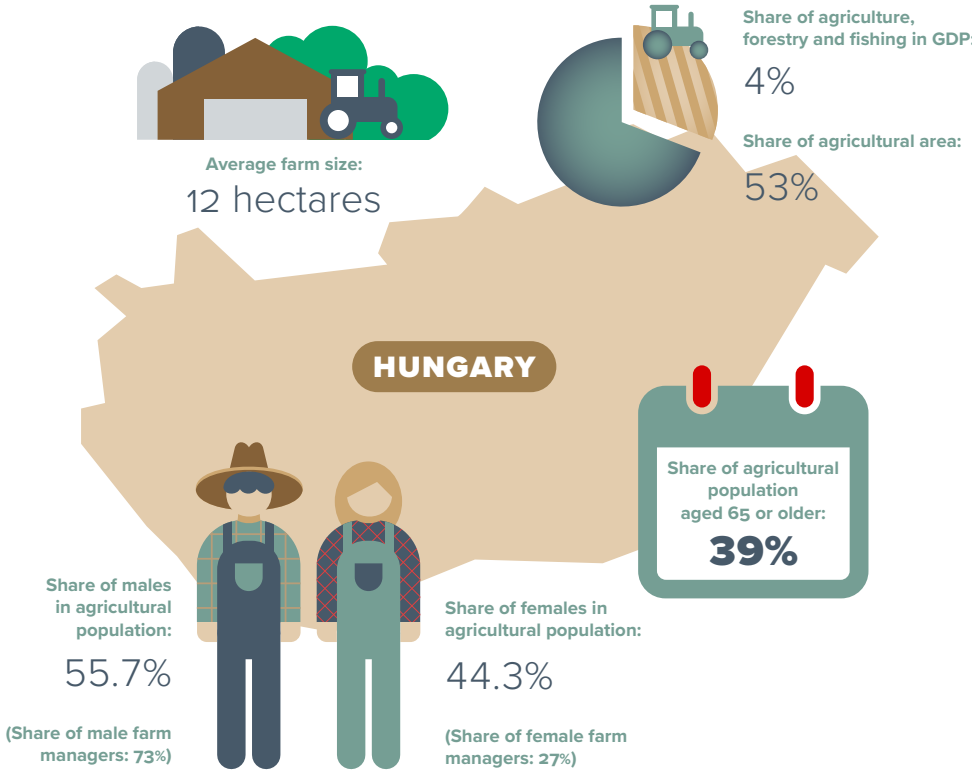
'Living environment and infrastructure' (category of physical and social well-being) – Objective indicators of the quality of the apartment (flat, house) and the congestion of the apartment reliably predict the quality of life and well-being of the individual. The development of the living environment and infrastructure is related to territorial, urbanization and regional differences. In addition, the social factor influencing the quality of the living environment is the characteristic system of cultural and social habits and behavioural norms of the people living there. The state of public safety not only destroys the well-being of the people living there in connection with potential crimes, but also the lack of sense of security and the negative effects of fear.

'Social capital, social participation' (category of social well-being) – is used to describe the contact with humans in quantitative and qualitative terms. Human personal relationships and community activities have a strong influence on the state of individual well-being from a social, psychological and economic point of view, and all of them determine social cohesion. The existence and way of cooperation of social subsystems in the family, workplace and living environment strengthens or weakens the fabric of society. An extensive network of personal contacts helps with individual well-being, employment, business success, and solving a variety of financial, physical, and mental problems.

'Social renewal' (category of social well-being) – individual and societal future expectations and opportunities are not only important from the future's point of view, but also have an impact on the well-being of the present. A positive vision includes the ability and security that a person is confident that he or she will always be able to mobilize appropriate resources under changing circumstances and may rely not only on his or her own resources, but also on external assistance and reciprocity.

3.

Description of main social challenges – national level



3.1. Material living conditions

3.1.1. Income, access to land and credit for a young farmer (at country level)

The level of agricultural incomes is lower than the national average and fluctuates sharply in several sectors (e.g. certain vegetables and fruits, pig fattening, bull fattening, etc.). The profitability of agricultural enterprises, especially small farms and certain sectors is highly dependent on direct payments (which are capitalized in land rents) and production costs are high and inefficient in comparison with the EU. There is a lack of management of risk factors (weather and other), such as low rates of animal insurance and low exploitation of derivative market risk management tools. The number of holdings carrying out also non-agricultural activities is declining and import dependence is significant for some inputs (e.g. protein feed, livestock equipment and materials, certain propagating material, fertilizers, etc.). (Kállay and Bryan, 2019)

One of the obstacles to attracting young people to the agricultural sector is the low level of income available through farming (EC, 2017). According to the European Economic and Social Committee's information report, low farm incomes are a problem in all EU Member States (Kállay and Bryan, 2019).

In agriculture, the average annual labour income per capita in Hungary in 2020 was HUF 3.9 million, which is 78.3 percent of the average labour income available in the national economy (HUF 5.0 million / person). In the period 2014–2018, the extent of difference between agricultural labour income and the average labour income in the national economy did not change significantly.

Examining the age groups of farmers, the share of land between the ages of 55 and 64 is the highest, they farmed 31.4 percent of the utilized land in 2016, while those under 35, who make up 6.0 percent of farmers, cultivated 6.4 percent of utilized land. During the period under review, between 2013 and 2016, the land share of the 35-44 age group and the over 65 age group increased.

Concentration processes as well as high land prices also hinder generational renewal in agriculture (Kállay and Bryan, 2019). The price of arable land is rising steadily and strongly, by an average of 10 percent a year. According to the preliminary data of the 2020 Agricultural Census, the proportion of land ownership is lower among young farmers, they rent a higher proportion of land than those over 40 years of age. As the age progresses, the share of own land increases: while 57 percent of those under 40 and almost 75 percent of those over 65 already own land.

Table 1: Number of farms and utilized agricultural area by age group of farmers, 2013 and 2016

	Number of farms		Utilized land by farms (ha)		Change in number of farms	Change in utilized land by farms (ha)	Average farm size (ha)	
AGE GROUP	2013	2016	2013	2016	between 2013 and 2016		2013	2016
below age 35	30 170	25 770	393 000	298 720	-4 400	-94 280	13,0	11,6
age 35–44	73 160	66 970	819 890	897 720	-6 190	77 830	11,2	13,4
age 45–54	95 540	87 550	1 159 960	1 086 150	-7 990	-73 810	12,1	12,4
age 55–64	143 690	117 970	1 569 460	1 464 760	-25 720	-104 700	10,9	12,4
above age 64	148 780	131 740	714 210	922 930	-17 040	208 720	4,8	7,0
TOTAL	**491 330**	**430 000**	**4 656 520**	**4 670 280**	**-61 330**	**13 760**	**9,5**	**10,9**

Source: Eurostat

According to the 2019 NAIK AKI questionnaire launched on the issue of generational change, the surveyed farmers considered the lack of rentable or purchasable arable land for expansion to be the second most significant impediment of the administrative burden of handover-takeover process. According to farmers, further assertion of generational change in land regulation (sale, lease, land swap) would greatly help farm transfer to the next generation (Agrya, 2018; Hamza, 2019).

In the case of start-ups, the lack of capital and collateral, as well as the lack of a business history, are most often obstacles to borrowing. In a questionnaire on generational change among farmers producing agricultural commodities in autumn 2019, respondents considered access to credit for young farmers to be the fourth most serious of the ten factors listed that hinder generational change. Farmers surveyed (N = 292) believe that access to credit is a major challenge for young start-ups without a farmer's family background, with an average of 3.93 on a scale of 1 to 5 (Hamza, 2019). Experts from banks involved in agricultural lending have also confirmed that a young farmer who takes over a functioning farm has a significantly better chance of starting the credit assessment process than a new entrant, as credit institutions fund on a cash-flow basis rather than on a collateral basis.

3.1.2. On-farm diversification, role of micro enterprises

The number of semi-subsistence and self-sufficient farms under the standard output of 3000 EUR that were questioned in the farm structure census decreased significantly, but the number of operating micro enterprises (ie having turnover or employees at any time during the reference year) employing 1-9 people (95% of all enterprises) increased by 44 percent in the agricultural sector and by 19 percent in forestry between 2014 and 2019.

In agriculture, the vast majority of new enterprises are created within the framework of generational change within the family (farm transfer or inheritance) (Kállay and Bryan, 2019; Hamza, 2019), this is also supported by preliminary data from the 2020 Agricultural Census. According to the results of a survey questioning 192 young farmers being interested in the generational renewal, the main difficulties for those involved are the administrative tasks related to the transfer of farms (modification of official permits, transfer of ownership rights of assets, applications, transfer of grants) (Agro Strategy, 2017). Another survey of 292 farmers found that lack of business relationships, difficulty in accessing credit, and high start-up costs are additional challenges (Hamza, 2019).

Experts[1] and research point out that the process of farm transfer is hindered by differences in attitudes between generations and the low level of cooperation between the elderly and the young generations ready to take over the farm, which is the basis for the transfer of experience (Székely, 2009; Csákné, 2012).

The start-up and operation of enterprises in a significant part of rural areas, especially in areas full of small villages, is also hampered by the slow service sector and infrastructure and the lack of skilled and trained labour (Hamza et al. al., 2018). The development of vertical and horizontal co-operations, which help the long-term operation of agricultural holdings and rural micro-enterprises, as well as the development of the market situation have a great influence.

3.1.3. Pension

"According to the 2018 data of the National Tax and Customs Administration (NAV) only 33% of the 156,448 primary producers who achieved an annual taxable income of HUF 600,000. i.e. just over 47,000 primary producers, paid some amount of contributions, including social security and pension contributions.

[1] Agrya – Hungarian Association of Young Farmers

The picture is further nuanced by the fact that the proportion of those paying at least a monthly average pension contribution of 10% is even lower, 44,138 people. The average amount of contributions paid by full-time primary producers is HUF 16,347. It can be seen that a large percentage of primary producers pay no or only minimal pension contributions, which predicts serious difficulties for their elderly years.

The majority of primary producers, more than two-thirds, do not pay pension contributions on their own, and the majority of contributors pay after 92% of the minimum wage, so low that they will only be entitled to a minimum pension.

Former employees of producer cooperatives are not in a much better position either, in many cases when they retire, it turns out that the already terminated producer cooperatives kept their records incomplete or negligent in the 70s and 80s, the data proving 20 years of service were lost, or they have not been registered at all and no pension contributions were paid afterwards. (Nyugdijmaskeppen.hu, 2021)

3.2. Social renewal

3.2.1. Demographics (whole population)

The demographic situation of Hungary has been determined by the natural decline in population that has been taking place at a variable rate for almost thirty years. The natural decline in the period between 2008 and 2018 amounted to 30 and 40 thousand people per year, which could not be brought into the positive range by the balance of the international migration difference. In the period between 2008 and 2018, the largest population decline was suffered by rural areas on the one hand, and the districts (micro-regions) to be developed and the beneficiary districts (being in a more disadvantaged socio-economic situation) on the other. The decline in the economically active population reduces the potential for natural labour supply, making it more difficult to create job-creating investments, but it also has an impact on the further expansion of consumption-led economic growth.

3.2.2. Poverty and social exclusion (whole population)

According to the calculations of the CSO, in 2018, 1,186,000 of those at risk of poverty or social exclusion lived in relative income poverty, 837,000 in severe financial deprivation and 348,000 in work poverty. One in five persons of the population is exposed to poverty and social exclusion (CSO, 2019). At the same time, a quarter of the population in rural settlements can be considered to be at risk of poverty and

social exclusion, which far exceeds the number measured in cities. A civic report to the European Commission in 2018 addressed the increase in school segregation, resulting in deteriorating key competences and frequent grade repetition of Roma students. The Roma population of hundreds of settlements (not only Roma people) – especially villages – are affected by ghettoization: these slums lack the most basic utility infrastructures and the risk of epidemics due to hygiene is constant (Cserti, Csapó and Orsós, 2015).

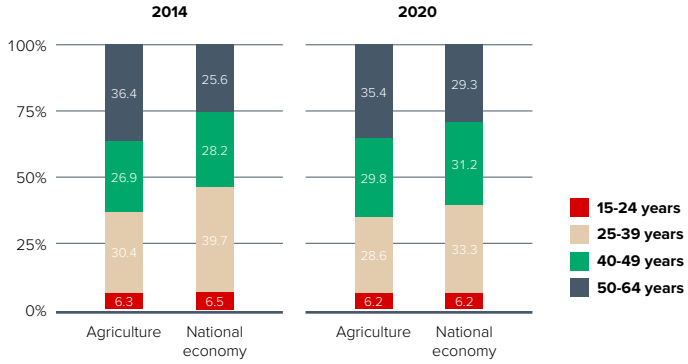
3.2.3. Generational renewal and age structure

The generational renewal of agriculture is fundamentally influenced by demographic processes, population decline, ageing and emigration.

In Hungary, as in the European Union, the proportion of the working age population is steadily declining, while the proportion of pensioners is increasing (Kállay and Bryan, 2019).

The age structure of those employed in agriculture is less favourable than the average of the national economy. The share of employed people aged 50–64 in the national economy as a whole was 29.3 per cent, while in agriculture it was 6.1 percentage points higher, 35.4 per cent in 2020. Between 2014 and 2020, the age structure of those working in both the national economy as a whole and in agriculture deteriorated, with a decrease in the proportion of young people (Figure 1).

Figure 1: Age distribution of employees in agriculture and the national economy between 2014 and 2020, percentage

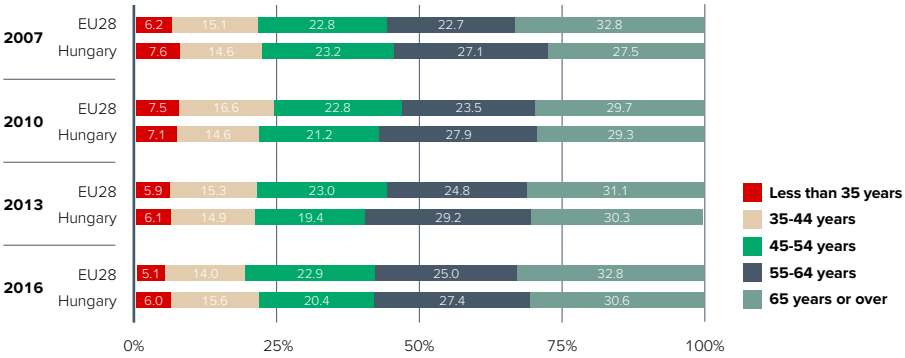


Source: Eurostat

The age structure of agricultural managers is also less favourable than that of agricultural employees (National Rural Strategy 2012-2020).

Looking at the last decade (between 2007 and 2016), the proportion of the oldest generation, i.e. those over 65, increased by 12 percentage points, while the proportion of young farm managers under 35 fell from 7.6 percent to 6.0 percent (Figure 2). Compared to 2013, the intensity of aging decreased significantly, the proportion of young people under the age of 35 decreased by 0.1 percentage points, while that of those over the age of 65 increased by 0.3 percentage points.

Figure 2: Age structure of farm managers in Hungary and in the EU between 2007 and 2016, percentage



Source: Eurostat

According to the preliminary data of the 2020 Agricultural Census, two thirds of farmers are above the retirement age (65 years), while the proportion of farm managers under the age of 40 is 10 percent.

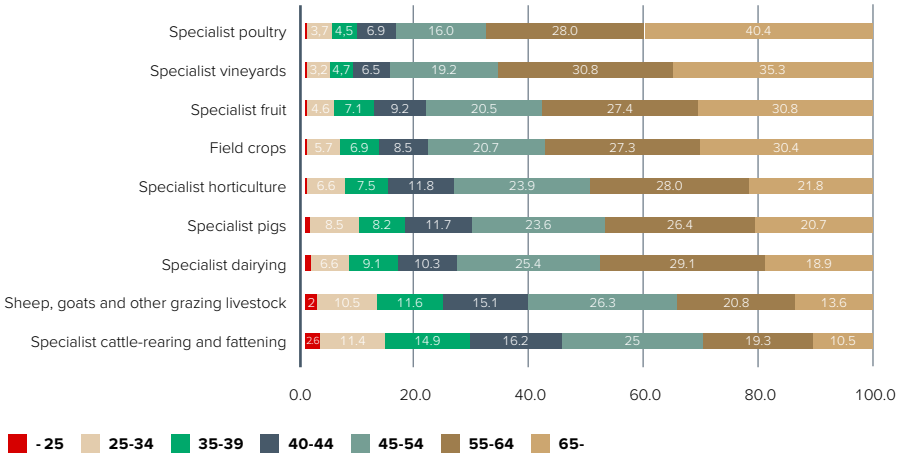
The takeover of the younger generations is hampered by the low level of willingness of older farmers to hand over the farm. (Hamza, 2019; Agrostratéga, 2019).

Women typically participate in running the economy as assisting family members, with a rate of 66.6 percent in 2016, compared to 33.3 percent for men. In contrast, the share of women among farm managers averaged 28 percent in 2016. The proportion of female managers is lower in young age groups: according to preliminary data from the 2020 Agricultural Census, 27 per cent of farm managers under 40 and 33 per cent

of those over 65 are women. (CSO, 2021) In the period between 2013 and 2016, the proportion of women under the age of 35 increased in both the EU28 and Hungary (from 24.9 percent to 26.7 percent in Hungary and from 22.7 percent to 23.3 percent in the EU28).

There are significant differences in the age structure of farm managers in each sector. The share of beef, sheep and goat farmers is the highest (13-14 percent) among young people under the age of 35, while that of grape and wine producers and poultry farmers is the lowest (3-4 percent) (Figure 3).

Figure 3. Age structure of farm managers in specialized farms by sector in 2016, percentage



Source: HCSO

The evolution of the age structure of farm managers is related to size characteristics in most sectors. In sectors (meat and dairy cattle farms) where the average economic size of farms is larger, the younger age structure of farm managers is typical, while in sectors with a high number of small farms (grape and wine production, fruit growing) the average age of farm managers is higher.

3.3. Education, knowledge, qualification

3.3.1. Farmers' qualification level, career orientation, digital competence

Although in Hungary a larger and growing proportion of younger farm managers have an agricultural degree: in 2013, 16.1 per cent of those under the age of 40, and in 2020, about 46 per cent of them had at least a secondary agricultural education.

The level of agricultural skills of young farmers is low by EU standards. The proportion of farm managers under the age of 35 with at least a basic agricultural vocational qualification in Hungary was 24.0 percent in 2013, which is about 15 percentage points lower than the EU28 average (EC, 2019). In 2016, 68 percent of farm managers under the age of 40 farmed without a vocational qualification, 8.3 per cent had a basic education, 16.3 percent had a secondary education and 7.4 percent had a higher education.

The new potential entrants to the sector are mainly graduates from vocational training studying agriculture and specialized in the agricultural discipline in secondary and higher education. In the 2018/2019 school year, the number of students decreased by 9 percent compared to the 2016/2017 school year. Among the sectors, only the number of students in agricultural engineering show a steady and very large increase. The number of students who successfully passed the vocational examination and entered the labour market was 2,861 in 2019, which is more than twice the number in 2014, but 6 percent lower than in 2018. The drop-out rate in agricultural vocational training institutions was 10 percent on average, and the rate of repeaters in 2019 was 6 percent.

In the 2017/2018 academic year, about 12,300 people studied agriculture and veterinary sciences in higher education (ISCED classification), and about 3,000-3,200 students graduate annually in agricultural higher education. The number of students has increased compared to 2014, however, most undergraduate students do not continue their studies, four times as many students attend undergraduate programs as master's, and twice as many graduates in undergraduate programs as master's.

According to the data of the 2018 graduate career tracking2, after obtaining the agricultural degree, almost a third of the career starters get jobs in other sectors (Harkányi et al., 2019). The drop-out rate of agricultural graduates is also explained

[2] https://www.felvi.hu/pub_bin/dload/felsooktatasimuhely/DPR/DPR_Gyorsjelentes_2018.pdf

by the low level of gross income of new entrants compared to that of other sectors.

Making the agricultural career attractive to the younger generations is hindered by the extremely low prestige of working in the agriculture or food industry (CSO, 2018b; National Rural Strategy 2012–2020). Addressing and shaping the attitude of the young generation is important, in which the programs and communication campaigns of various professional interest groups, such as the Hungarian Association of Young Farmers (AGRYA) and the National Chamber of Agriculture (NAK) (www.agrya.hu; www.nak.hu) play a very important role. According to students in agricultural vocational schools, among the career guidance tools, school open days play the biggest role in choosing a profession, 65.0 percent of students received the most useful help in choosing a school in these programs. However, many of the career guidance tools (leaflets, advertisements, career exhibitions) are not effective (Hamza and Rácz, 2019).

Apprenticeship and cooperation between agricultural enterprises and students in agricultural vocational training and university students could be a key tool for career guidance and labour supply. However, only a small proportion of agricultural enterprises actually participate in dual training (Hamza, Rácz and Szabó, 2018; SAO, 2018).

Apprenticeship cooperation between agricultural enterprises and students in agricultural vocational training and university students could be a key tool for career guidance and labour supply.

The shortcoming of the current training and advisory services is that they do not cover the knowledge on the succession of agricultural holdings, the preparation of the transferor and the transferee of the holding.

The main obstacle to the spread of IT solutions in Hungarian agriculture is the incompetence, lack of skills and inadequate attitude of human resources. (IVSZ, 2016). The spread of digitalisation in the agricultural sector may be an opportunity for the younger

generation to be more sensitive to digitization in the sector, as the 2018 farmer survey of 1395 respondents, which formed the basis of the Digital Strategy, shows that the use of digital devices is significantly more widespread among young farmers under the age of 40 than among those over the age of 40. While nearly half of those under 40 (46.4 percent), barely a quarter of farmers over 40 (23.5 percent) use the internet regularly to obtain information about the business. There is also a significant difference in the use of smartphones and tablets, with 27.6 percent of young farmers and 15.5 percent of those over 40 using smart devices to obtain information. 27.0 per cent of those under the age of 40 carry out business-related electronic administration themselves, compared to 19.3 percent of those over the age of 40.

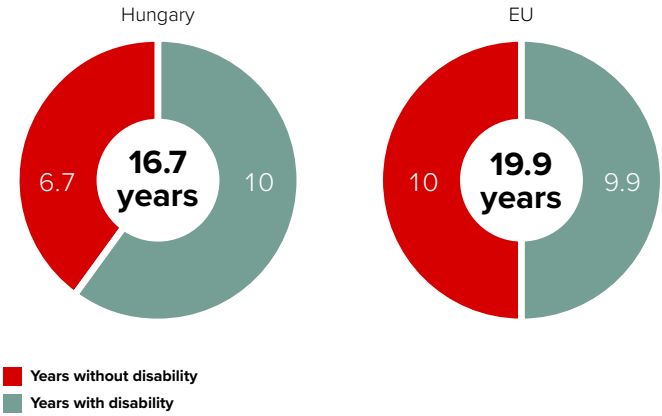
3.4. Health (whole population)

Life expectancy in Hungary is lower than in most European Union countries: in the EU, people at the age of 65 years can live another 19.9 years on average, 10 years of which can be spent without disabilities, while in Hungary life expectancy at age 65 is only 16.7 years, potentially having 6.7 years with no disabilities. (See Figure 4) At the same time, there are significant differences in life expectancy between the sexes and socio-economic groups.

As a consequence of low levels of public funding and low GDP per capita, public health expenditure is less than half of the OECD average and less than a third of that of affluent countries. To compensate for this, people spend a disproportionate amount of their own income on health care. As the most serious consequence of low-quality public care, Hungarians die much earlier than their European counterparts, and in addition to the high rate of avoidable deaths, the rate of preventable deaths is also one of the highest in the EU. Cancer is responsible for a quarter of all deaths. (Lantos, 2018; OECD & WHO, 2019)

According to the data of the European Union Household Budget and Living Conditions Survey (EU-SILC) until 2019, in Hungary the proportion of both men and women who consider their own health to be good or very good is lower and the proportion of both men and women who consider their own health to be bad or very bad is higher than in the EU. Among the inhabitants of rural (low population density) settlements, the former correlation is especially true, and in contrast to the EU trends, the proportion of the population with a long-term illness or health problem tends to increase in Hungary, especially in rural areas. At the same time, somewhat surprisingly, the proportion of households in Hungary that report unmet medical needs or treatment needs due to costs, waiting lists or distance from care is lower and declining,

Figure 4: Life expectancy at age of 65, with the number of years without disability



Source: OECD & WHO, 2019

in line with the EU trend, especially in rural areas. (Data source: Eurostat) Irrespective of the subjective opinion of the population, the Hungarian medical community is suffering from ageing and emigration, and one of the most pressing problems affecting the countryside is the increase in the number of vacant primary care districts. (OECD & WHO, 2019). Related to the territorial disparities in terms of health, the prevalence of chronic diseases and the proportion of people being less satisfied with their health is higher in Hungary's disadvantaged regions, such as Southern Transdanubia, Northern and Southern Great Plain, and Northern Hungary (HCSO, 2019).

GINOP-5.3.4-16-2017-00030 "Complex Occupational Health and Safety Development Program in the Agricultural Sector" project of the Trade Union of Agricultural, Forestry, Food and Water Workers (MÉDOSZ) and the National Association of Agricultural

Irrespective of the subjective opinion of the population, the Hungarian medical community is suffering from ageing and emigration, and one of the most pressing problems affecting the countryside is the increase in the number of vacant primary care districts. (OECD & WHO, 2019)

Cooperatives and Producers (MOSZ) summarized the typical occupational health risks in this sector as follows:

- a lot of dangerous work equipment,
- frequent exertion from heavy physical work,
- often work with chemicals and mixtures that are harmful to health,
- workers are exposed to the weather due to working outdoors,
- frequent lifting of heavy objects,
- long daily working hours,
- being away from the family a lot,
- most employees are employed on a family farm or are self-employed,
- high number of unskilled labour force,
- a large proportion of workers are temporary contract workers or casual workers.

"People who work with livestock may be exposed to animal hair and dander, animal fluids (blood, urine, milk, etc.), animal feed, animal-related parasites and microorganisms found in these sources. The variety of activities involved in agricultural work and the consequential exposure of workers to a diverse range of biological agents results in the prevalence of various work-related diseases in this sector. These range from outbreaks of infectious diseases such as zoonoses (e.g. Q-fever) to the health problems resulting from the inhalation of organic dust: annual lung function decline, organic dust toxic syndrome (COPD) and respiratory disease with lower forced expiratory volume." (EU-OSHA, 2019)

4.
Analysis of selected themes in social challenges

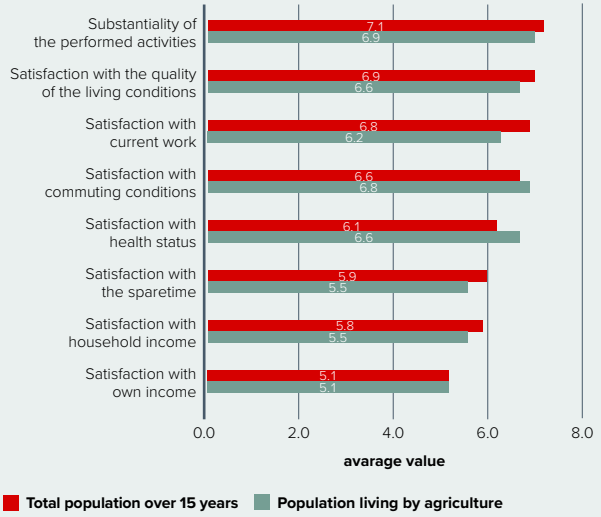
4.1. Satisfaction with living conditions

Our well-being is strongly influenced by how satisfied we are with our living conditions in general, i.e., our work, living environment, activities, health status, financial situation. The survey of Microcensus 2016 on subjective well-being measured satisfaction on an 11-point scale, where a score of 0 meant "not at all satisfied" and a score of 10 meant "explicitly satisfied". The level of substantiality of the activities performed was also examined on an 11-point scale, where 0 means "not at all" and 10 means "specifically substantial".

The average values given by the total population over 15 years of age and those living from agriculture are illustrated in Figure 5. Overall, respondents are most positive about the substantiality of their activities (7.11), the quality of their living environment (6.86) and their current job (6.80), and the most dissatisfied with their own and household income (5, 13 and 5.79) and the time spent with their favourite things (5.89) (CSO, 2018). Those working in agriculture had a slightly more negative opinion of most of the factors influencing living conditions than the average of the total population, but their opinion on their health and working conditions was more favourable than average. Their satisfaction

with their own income is equal to the average opinion of the entire population.

Figure 5: Satisfaction with living conditions and the level of substantiality of the performed activities among the total and agricultural population, 2016



Source: HCSO

In a regular week, 36.8 percent of respondents had no day off at all, 40.2 percent rested for one day, 13.4 percent for two days, while the proportion who rested for more than two days was 1.3 percent.

Among the respondents of the FLINT project's survey (the survey was aimed at the agricultural population), in a regular week, 36.8 percent of respondents had no day off at all, 40.2 percent rested for one day, 13.4 percent for two days, while the proportion who rested for more than two days was 1.3 percent (and 8.3% did not answer the question). In the financial year preceding the survey, exactly one-fifth of the respondents did not take a day off at all, 5.5 per cent were able to go on leave for 1-3 days, 16.4 per cent for 4-7 days, 17.1 per cent for 8-14 days, 24.9 per cent 15-30 days and 11.8 percent for more than 30 days. Due to illness, 62.2 percent of respondents had to resolve their replacement in the current year, and 57 percent for other reasons.

More than half of the respondents considered the months of May to September to be the period of job peaks. The length of

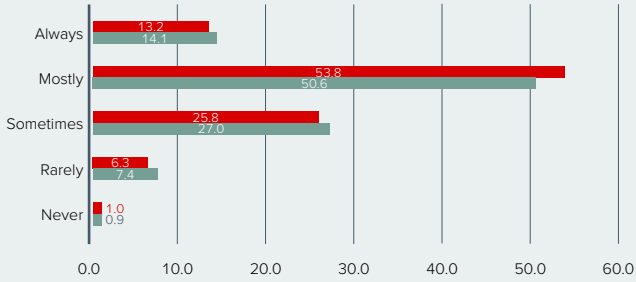
peak periods is more than 120 days for the 22.5 percent group of respondents, 61-120 days for 19.7 percent, 31-60 days for 18 percent, and 30 days or less for 37.8 percent of them. In peak periods, 86.5 percent worked more than 8 hours a day, 51.25 percent worked at least 12 hours, and 25.4 percent worked 14 or more hours.

The level of subjective satisfaction was rated with FLINT survey respondents on an 11-point scale, where 0 was 'Very Unsatisfied' and 10 was 'Very Satisfied'. Respondents were most satisfied (with an average of 7.53) with the fact that they were farmers themselves. The average level of satisfaction with their freedom of choice was 7.47, with tasks related to typical daily work 7.25, with the overall quality of life 6.83, and with work-life balance 6.34.

4.2. Mental well-being

The survey of Microcensus 2016 looked at the well-being of the population over the age of 15 along five emotional states: happiness, discouragement / depression, irritability, stress and calm / peaceful feeling. The questions were about how often the respondent experienced the listed emotions and states during the enumeration period. One could choose from the answers "always", "mostly", "sometimes", "rarely" or "never".

Figure 6: Distribution of the frequency of happy emotional state among the total and agricultural population, 2016, %



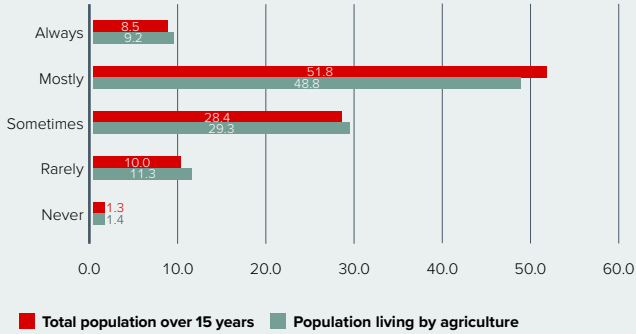
Source: HCSO

The mental well-being of the surveyed population is generally characterized by the fact that the frequency of positive emotional states (happy, calm, peaceful) far exceeds that of negative emotional states. 67.0 per cent of the population reported that they generally (always or mostly) felt happy, while among those engaged in agriculture, this proportion was slightly lower (64.7 percent). Only 7.3 percent of the population and 8.3 percent of those living from agriculture reported that they rarely or never felt happy (Figure 6). Among those living in villages, the proportion of those who mostly feel happy (52.1%) is lower than in those living in big cities (54.5%) or the capital (54.9%).

With higher educational qualifications, the feeling of happiness also increases, 56.9 per cent of those with up to primary education and 76.1 per cent of those with higher education reported that they always or mostly felt happy.

60.3 percent of respondents reported that they always or mostly had a calm, peaceful mood during the enumeration period, 11.3 percent rarely or never felt this way. Overall, a slightly lower proportion of those living from agriculture felt calmer and more peaceful, just as there was a lower proportion of those living in villages than those living in large cities and capitals (Figure 7).

Figure 7: Frequency of experiencing a calm, peaceful emotional state among the total and agricultural population, 2016, %



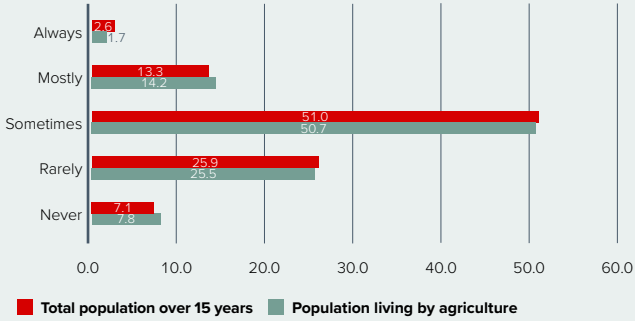
Source: HCSO

The survey shows that men always or often experience a higher proportion of positive emotional states than women.

Negative emotional states (stress, irritability, and depression) are much less common among the population. These conditions were always or mostly experienced by 12.3-19.8 percent of the population, but rarely or never by 33.0-41.3 percent.

A depressed feeling has a negative effect on an individual's well-being if it persists. There is no significant difference between men and women in terms of depressive mood, although it affects women more than men: in the pre-survey period, 17.1 per cent of women and 14.6 per cent of men felt mostly or always depressed. The depressive emotional state for those working in agriculture is similar to that for the general population (Figure 8).

Figure 8: Distribution of the frequency of depressive and discouraged emotional state among the total and agricultural population, 2016 %

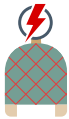


Source: HCSO

There are greater differences across age groups. Older people are most affected by this emotional state: 25.8 percent of people over the age of 75 reported being mostly or always discouraged. In the younger age groups, this proportion has been declining, with only 9.5 per cent of 16-24 year-olds often (always or mostly) feeling depressed or discouraged.

Frequent depression affects those on lower incomes more: 23.6% in the lowest income quintile and only 10.4% in the top. (CSO, 2018).

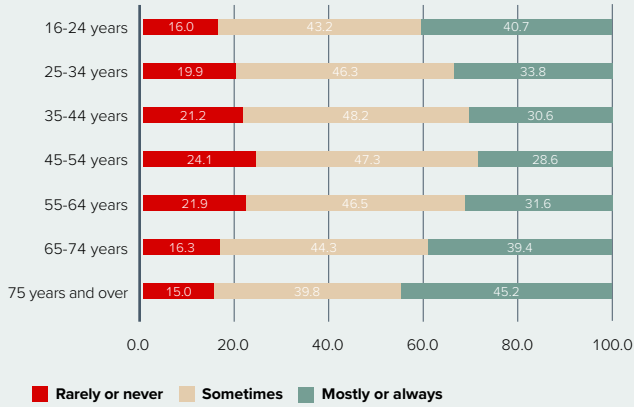
With higher educational qualifications, the feeling of happiness also increases, 56.9 percent of those with up to primary education and 76.1 percent of those with higher education reported that they always or mostly felt happy.



The middle-aged (between 45 and 54) find their lives always or mostly stressful (24.1 percent) at the greatest extent, while 16 percent of the youngest 16-24 age group and the oldest over 65 felt the same. People working in agriculture do not differ from the total population in this respect.

19.8 per cent of the population complained about being under stress in general, 34.5 per cent of them experienced stress only rarely or not at all. The middle-aged (between 45 and 54) find their lives always or mostly stressful (24.1 percent) at the greatest extent, while 16 percent of the youngest 16-24 age group and the oldest over 65 felt the same (Figure 9). People working in agriculture do not differ from the total population in this respect. Although our assumption is that people in big cities and in the capital are experiencing more stress compared with those living in villages, according to the survey there is no considerable difference regarding the type of settlement.

Figure 9: The frequency of experiencing stressful emotional state in different age groups, 2016 (%)



Source: HCSO

12.3 percent of the respondents was irritated in general, on the contrary 41.3 percent of them did have the same feeling rarely or never in the pre-survey period. Among people employed in agriculture there is a higher proportion of feeling irritability mostly or always, and a lower proportion of feeling it rarely or never (Figure 10). The emotion of irritability (similarly to stress) is typical of middle-aged people, but there is no significant difference regarding the settlement type, people live in.

Figure 10: The frequency of experiencing intense irritability among the total and agricultural population, 2016 (%)

Source: HCSO

The level of daily stress during work was assessed on a similar scale by the FLINT survey (0 = Free of stress, 10 = Very stressful). The average of the ratings was 5.83, and the proportion of fillers who perceived the level of stress in grades 5 to 10 was 71.6 percent. Compared to the situation five years earlier, only 9.8 percent of respondents thought stress was reduced, 36.7 percent said it did not change, and 52.4 percent reported increasing stress. Freedom of management decisions was more limited for 34.5 percent of respondents than five years earlier, 47.6 percent said no change, and only 16.5 percent felt freer to make decisions.

Among people employed in agriculture there is a higher proportion of feeling irritability mostly or always.

The results of primary data collection among farmers are not suitable for validating the additional enumeration to the Microcensus due to the small size of items, but both the respondents of the questionnaire (17 people), the interviewees (14 people) and the members of the Practice Group were asked (in the form of open questions) to express what influences their well-being in general advantageously or disadvantageously.

According to the informants the advantageous, beneficial factors are primarily the secure and peaceful family background,

relaxation and leisure time, having personnel relationships and cooperation. Another important aspect is farmers to love their work. *"I'm a lucky person, I do what is not a job for me, but a hobby." "It doesn't bother me."* (68-year-old arable crop farmer). A calm, rural lifestyle also has a positive effect on well-being: *"whoever lives in the countryside prefers to live there for less money than in the city"* (61-year-old livestock farmer).

"I'm a lucky person, I do what is not a job for me, but a hobby." "It doesn't bother me."

In several interviews the thought of creation was mentioned, namely the fact that the farmers can see the growth of the plants from the seeds or the closeness of another living being have a positive effect on their general mood. In one case this was accompanied by spiritual, and religious faith/strength as well, this informant could cope successfully with stress, as he believes that God gives him and his family everything they need, he is satisfied with everything he gets (49-year-old, floriculturist and horticulturist).

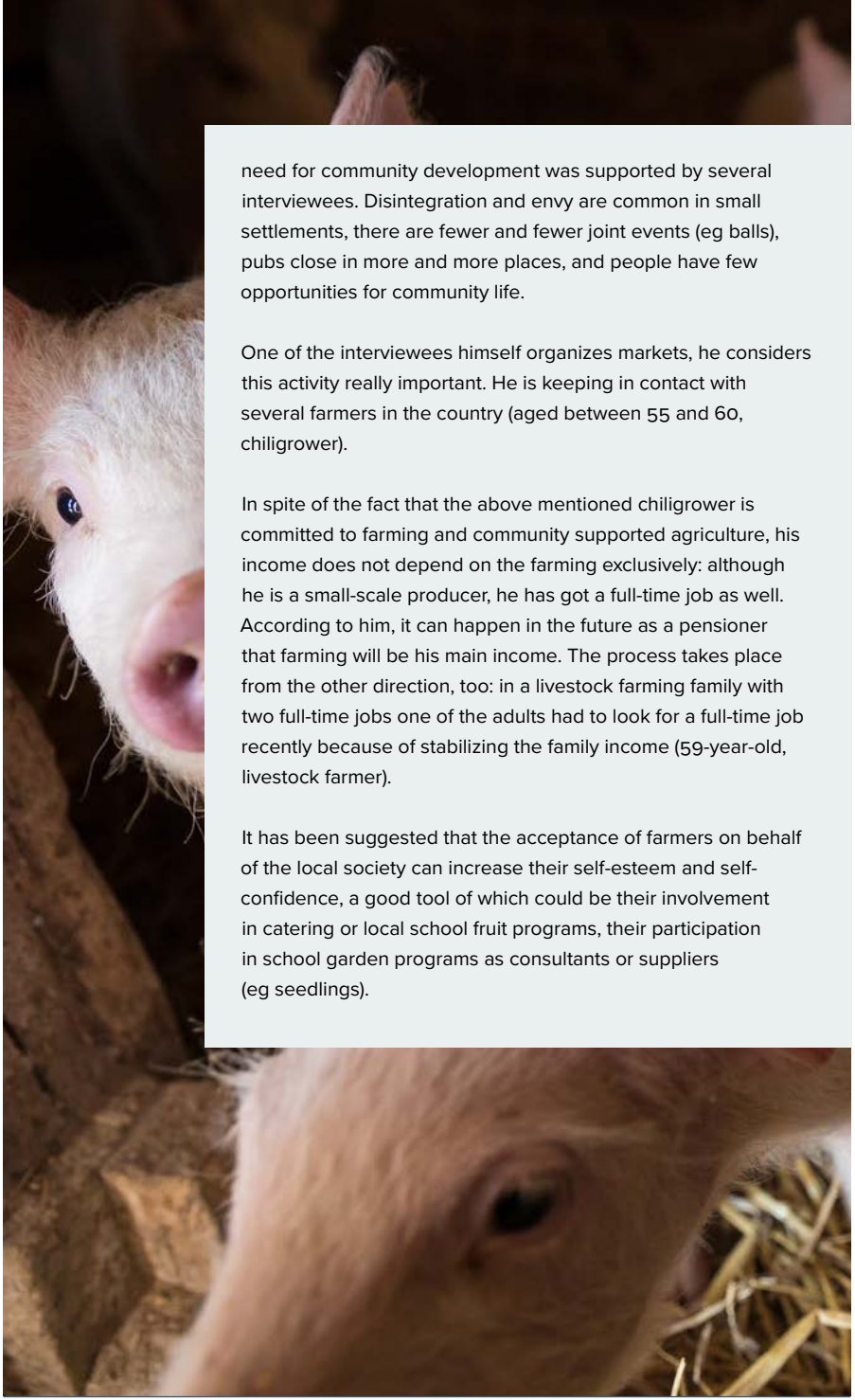
As stated by the PG members and interviewees, mental problems are related to the general perception of the sector, as farming is generally a rather overlooked activity by society, which adversely affects actors. They cannot be proud to farm. There is a growing acceptance on the part of green organizations and the media that agriculture is the most damaging to the environment, which further undermines the perception of the sector, which in turn undermines farmers' self-esteem. According to the respondents the public/political sentiment, the unpredictable economic environment, shortage of labour, the extreme administrative obligations, isolation and loneliness, feelings of uncertainty about the future, lack of time to relax and rest, monotonous work, lack of recognition, stress caused by the market, livelihood and weather risks affect farmers' wellbeing negatively. Regarding the annoyances caused by external factors, one farmer put it this way: *"We have to learn to let go of things we can't change anyway and not let go of negative, annoying things" (61-year-old livestock farmer).* One of the interviewees summarized the problem of calculability and predictability tangibly when she said it is not OK at all that the

producer/farmer has to take all the risks (climatic, financial, risks related to the market or the lack of human resource), and beside this the mitigation of damages is unsatisfactory (35-year-old, fruit-farmer).

Farmers have a very limited opportunity for relaxation and going on holiday, as there is no one who can be responsible for the farm during their absence. Interviews could clarify that there is a positive tendency among those who are operating arable farming, namely they can go on holiday after harvesting for one or two weeks, but those engaged in animal husbandry the activity needs continuous presence, they can leave the farm only to relatives and family members. One of the interviewees emphasized the importance of a holiday, saying that in order to really relax, it takes at least 10 days to go, because it usually takes three days for a person to leave things related to farming at home. Others referred to the Janus-faced nature of going on holidays as they experienced the difficulties of leaving the farm for some days: one of them planned to spend a week at his sibling's place, and his brother mentioned in the first days of the holiday that the informant must be homesick, because his every third sentence was about the animals (59-year-old, livestock farmer). The previous interviewee knew about an utmost extreme and unusual solution in his circle of acquaintances, where the husband and wife go alone on holiday to be able to run the farm by turns in the absence of their spouse. Interestingly it was not a burden for them, but a long-term and positive solution. Encouraging farmers to recreate and relax due to introducing relief services focusing on the management issues could be a solution, but the farmers' trust is also essential in this particular case, as they have to leave their farms to outsiders while they are away.

Farmers have a very limited opportunity for relaxation and going on holiday, as there is no one who could be responsible for the farm during their absence.

PG members formulated the development of local communities, the encouragement of farmers' participation in communities, the strengthening of collaborations, and the organization of knowledge-sharing programs on stress management topics as a solution to improve the mental well-being of farmers. The



need for community development was supported by several interviewees. Disintegration and envy are common in small settlements, there are fewer and fewer joint events (eg balls), pubs close in more and more places, and people have few opportunities for community life.

One of the interviewees himself organizes markets, he considers this activity really important. He is keeping in contact with several farmers in the country (aged between 55 and 60, chiligrower).

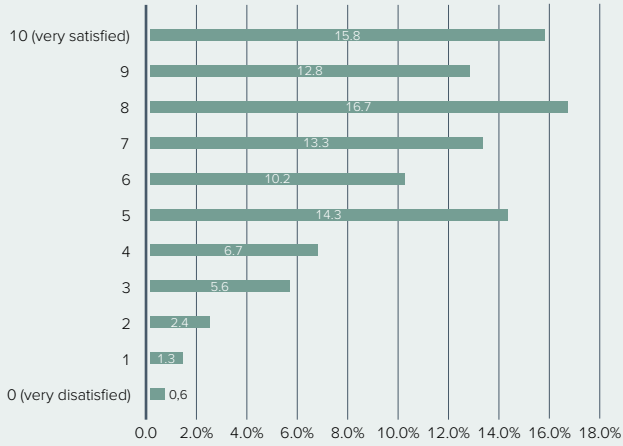
In spite of the fact that the above mentioned chiligrower is committed to farming and community supported agriculture, his income does not depend on the farming exclusively: although he is a small-scale producer, he has got a full-time job as well. According to him, it can happen in the future as a pensioner that farming will be his main income. The process takes place from the other direction, too: in a livestock farming family with two full-time jobs one of the adults had to look for a full-time job recently because of stabilizing the family income (59-year-old, livestock farmer).

It has been suggested that the acceptance of farmers on behalf of the local society can increase their self-esteem and self-confidence, a good tool of which could be their involvement in catering or local school fruit programs, their participation in school garden programs as consultants or suppliers (eg seedlings).

4.3. Health

The Microcensus 2016 research on subjective well-being contains only one question regarding the health state, the respondents assessed their satisfaction with their own health on a scale of zero to 11. The population surveyed gave an average value of 6.60 to this question, while agricultural workers consider their health to be slightly better (6.84 on the scale). Satisfaction with the health is higher among men (6.77) than women (6.45), that reflects the fact that men remain healthy in the greater proportion of their lifespan compared with women. The individual satisfaction with health is strongly influenced by the age and qualification: the satisfaction with health gradually decreases with the passage of age, and increases with the level of education. While the 16-24 age group assessed their health state at 8.28 on average, the ones over 75 assessed it only at 4.74. As for the education respondents finishing only the primary school gave the average value of 5.73; informants with higher education were satisfied with their health with 7.23.

Figure 11: Distribution of agricultural worker respondents according to their satisfaction with own health status, 2016 (%)



Source: HCSO

It has been suggested that the acceptance of farmers on behalf of the local society can increase their self-esteem and self-confidence, a good tool of which could be their involvement in catering or local school fruit programs, their participation in school garden programs as consultants or suppliers (eg seedlings).

It is typical that farmers take care of elderly family members with deteriorating health within the family and do not use institutional assistance.

According to the interviews the most typical health problems of people working in agriculture are the problems of back and spine, the noise-induced problems, and the consequences of accidents at work. Farmers do not pay attention to the prevention, it is particularly true to elder farmers, so farmers could use a voucher for preventive health services as a useful, innovative solution. On the countryside the availability of health care system is a huge problem, so the launching of health screening buses and offering health services on the spot could be a good practice.

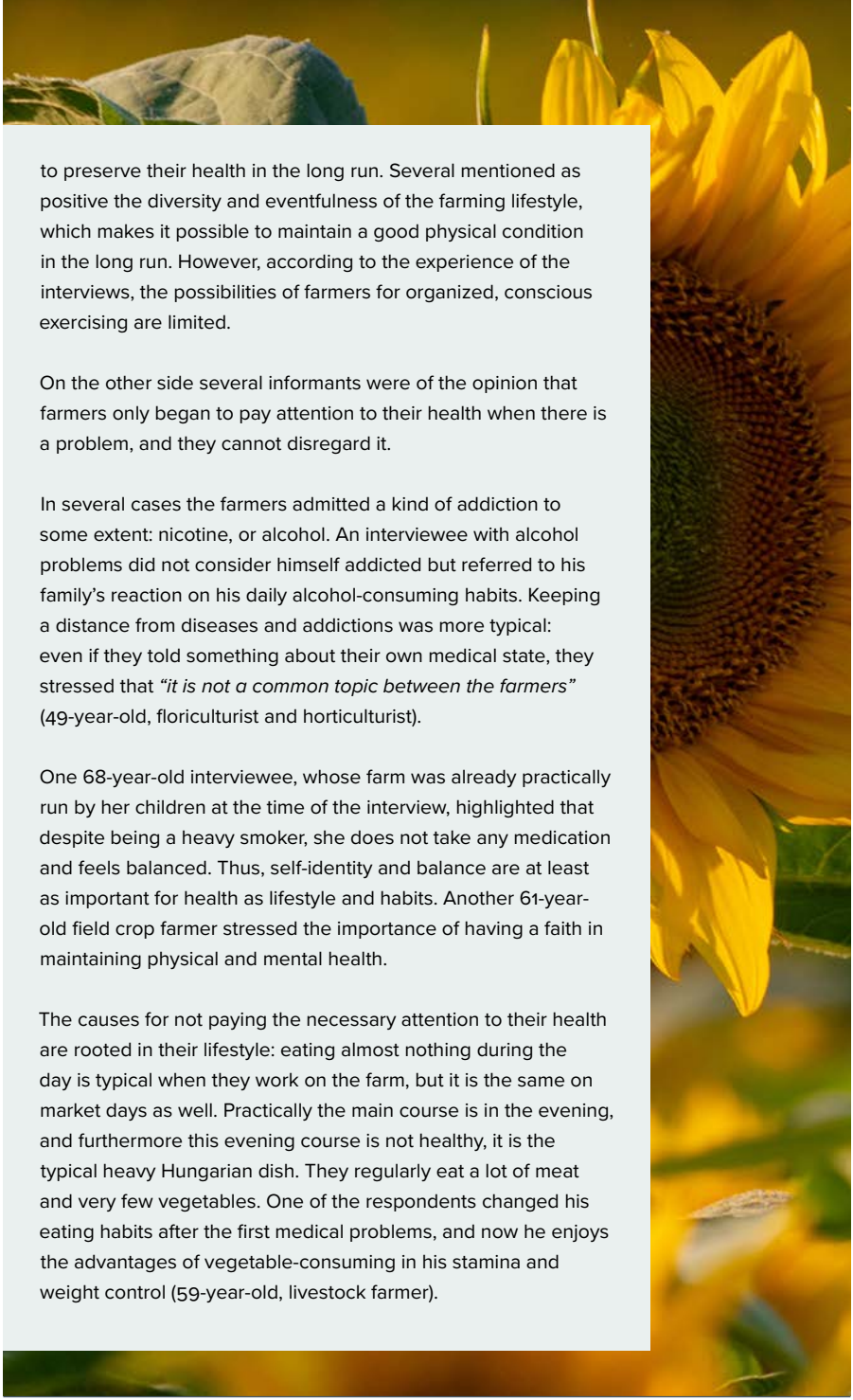
As told by the informants, advantageous factors on health can be regular and qualitive meals, relaxation on regular basis. They mentioned among disadvantageous factors the stress, the quality and difficult availability of health service.

Based on the farmer interviews, access to specialist care is the main problem due to the long physical distance, in connection with the reorganization of specialist hospital functions at the national level.

The operation of the farm at different stages of business development implies different physical and mental strains. From the point of view of mental and physical health, the most stressful period is the first 5-10 years of the operation of the enterprise, which is a key period for the accumulation of basic resources (farmland, knowledge, experience, relationships) necessary for farming.

It is typical that farmers take care of elderly family members with deteriorating health within the family and do not use institutional assistance. For example, one farmer in her early 60s reported caring for her daughter with a chronic mental illness and her mother who was no longer able to meet her basic physical needs at the same time.

Farmer interviewees consider it an advantage to be able to do their work outdoors, in good air, close to nature, in order



to preserve their health in the long run. Several mentioned as positive the diversity and eventfulness of the farming lifestyle, which makes it possible to maintain a good physical condition in the long run. However, according to the experience of the interviews, the possibilities of farmers for organized, conscious exercising are limited.

On the other side several informants were of the opinion that farmers only began to pay attention to their health when there is a problem, and they cannot disregard it.

In several cases the farmers admitted a kind of addiction to some extent: nicotine, or alcohol. An interviewee with alcohol problems did not consider himself addicted but referred to his family's reaction on his daily alcohol-consuming habits. Keeping a distance from diseases and addictions was more typical: even if they told something about their own medical state, they stressed that *"it is not a common topic between the farmers"* (49-year-old, floriculturist and horticulturist).

One 68-year-old interviewee, whose farm was already practically run by her children at the time of the interview, highlighted that despite being a heavy smoker, she does not take any medication and feels balanced. Thus, self-identity and balance are at least as important for health as lifestyle and habits. Another 61-year-old field crop farmer stressed the importance of having a faith in maintaining physical and mental health.

The causes for not paying the necessary attention to their health are rooted in their lifestyle: eating almost nothing during the day is typical when they work on the farm, but it is the same on market days as well. Practically the main course is in the evening, and furthermore this evening course is not healthy, it is the typical heavy Hungarian dish. They regularly eat a lot of meat and very few vegetables. One of the respondents changed his eating habits after the first medical problems, and now he enjoys the advantages of vegetable-consuming in his stamina and weight control (59-year-old, livestock farmer).

According to several interviewees the third reason for obesity (beside the random and inappropriate eating habits) is the mechanisation. Driving a tractor results in a special health risk, as this vehicle “shakes”, and the vibration causes locomotor disorder.

The difficulties of getting up early (even at 4 a.m.) were frequently mentioned and if it is combined with writing different applications late at night (while eating snacks), the consequences on people’s health are undoubtedly negative (55-year-old, social farmer).

A huge problem is physical exhaustion – mainly as a counterpoint of mechanisation. It could be avoided with the help of employees, but most of the farmers have negative experiences as they cannot rely on proper human resources. If 40 people are recruited for harvesting, only 5 of them are there to work. Young people only have objections, either it is too hot, or it is raining (35-year-old, fruit-farmer) Calling off the work in the morning hours of the workday is common in case of mowing as well (59-year-old, livestock farmer).

The unpredictability and health-damaging nature of these situations can be tangibly described with the following case: one interviewee spoke on the phone with another farmer on Christmas Eve. One of them was mucking out the stable, while the other was milking goats (55-year-old, social farmer).

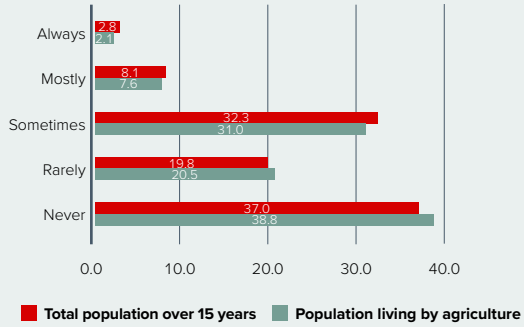
4.4. Personal relationships, trust (in peers, institutions, future)

Having personal relationships, and a well-established network of connections largely determines people's sense of well-being. People who feel lonely and have no one to discuss personal issues with, judge their well-being more gloomy. In the following, we examine the individual's personal relationships, satisfaction with them, and general trust in people and institutions.

Having personal relationships, and a well-established network of connections largely determines people's sense of well-being.

The proportion of the population aged 16 and over who rarely or not at all felt lonely was 56.8 per cent, but 32.3 per cent occasionally and 10.9 per cent always or mostly felt lonely (HCSO, 2018). According to the survey, the proportion of those who felt lonely among those working in agriculture is slightly lower (Figure 12). On the positive side, generally the population and 94.9 percent of people living in agriculture have someone with whom they can talk about their personal matters, and only 5.1 percent of them have no such person in their lives.

Figure 12: Frequency of the feeling of loneliness among the total and agricultural population, 2016 (%)



Source: own editing based on HCSO (2018) data

According to a 32-year-old interviewee in milk production and processing, farmers lack social life the most, although they are not explicitly active in changing this.

However, the experience of the interviews shows that farming is basically a solitary activity. Farmers do their work alone most of the day, and as a result, most of them are aloof. Typically, farmers maintain contacts with farmers, like-minded people, and people who do not meet other types of work, which somewhat narrows their horizons. At the same time, it is good that they can usually talk about their concerns to people with similar problems and be able to help each other. According to a 32-year-old interviewee in milk production and processing, farmers lack social life the most, although they are not explicitly active in changing this. It is common that if a farmer does not like someone in the local community, they prefer to avoid these encounters.

PG members agreed with a score higher than average (score 3.8 on scale 5) that farmers live more isolated, lonely lives than those working in other sectors.

According to the survey, the average value of trust in people in the entire population can be said to be low (4.73). This confidence is slightly lower among those living in agriculture (4.50). Regarding trust in people, the interviews highlighted that while in the past spoken words had more power, it is now more common to write a contract for everything that is underpinned by an administrative obligation that is increasingly present in our daily lives. Trust with other farmers and business partners is unique, it depends on the individual, but the expectation of safeguards, advance payment, conclusion of contracts is a general trend.

As for the contracts: almost all of the interviewees had similar experience when selling or buying something: their products were not bought on the previously calculated price or the whole order was cancelled 2 days before the delivery (49-year-old, floriculturist and horticulturist), or when he himself travelled through the country with the aim of purchase, it became more expensive (even with 70 Hungarian Forints per kilo), as *"others buy it at this price, as well"* (aged between 55 and 60, chiligrower).

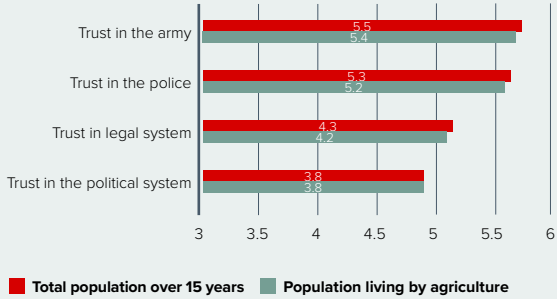
One of the more experienced interviewees justified the local malice on the grounds that “poverty breeds envy”. In the case of several interviewees, it was also true that one (or the only) enterprise in their settlement that could employ more people locally was the farm they ran.

Among the factors that weakened farmers’ confidence in their environment, PG members mentioned the following:

- over-regulated economic environment, deadlines
- delays in the payment of grants
- lack of advice or outdated content
- lack of contractual discipline in business, unpredictable business partners
- excessive administrative burden and bureaucracy in the administration and support system
- legislation that is not transparent and difficult to interpret
- protracted, often ineffective justice
- unrealistic support conditions
- slow and cumbersome administrative work due to the workload of administrative officials.

Within the 2016 Microcensus, on an 11-level scale to measure trust in institutions, a value of 0 meant “I do not trust at all” and a score of 10 meant “I trust completely”. The questions concerned trust in the political system, the legal system, the police and the army. Confidence in institutions is generally weak to medium. Respondents trust the military the most (5.45), followed by the police (5.27). People have less trust in the legal system (4.33), even less in the political system (3.75). Those working in agriculture have slightly less trust in institutions than the general population. (Figure 13)

Figure 13: Average values of trust in institutions among the total and agricultural population (0 = I do not trust at all, 10 = I trust completely), 2016



Source: own editing based on HCSO (2018) data

The level of trust in institutions is the lowest among those with a primary and non-high school education.

The level of trust in institutions is the lowest among those with a primary and non-high school education, it is medium among those with a high school graduation, and the highest among those with a tertiary degree. The most significant differences between the groups according to educational attainment can be observed in the case of trust in the legal system: the average trust value of respondents with primary and non-graduate secondary education was 4.07, and that of those with higher education was 4.88. The army had the most similar levels of trust (averages between 5.34 and 5.64). Examining trust in institutions in terms of income, it can be seen that moving towards higher income quintiles increases trust in all types of institutions. (HCSO, 2018). In general, women have more trust than men in all types of institutions.

In the primary data collection of the Farmwell questionnaire, we also asked about trust in some specific institutions important to farmers (eg NÉBIH[3], government offices, NAK[4], consultants,

[3] National Food Chain Safety Office
[4] Hungarian Chamber of Agriculture

MAGOSZ[5], MSZOSZ[6], product councils). The answers reflect that a much smaller proportion of farmers (on average around 30-35 percent) trust large national advocacy organizations (MAGOSZ, MSZOSZ, NAK, or product councils) than general administrative bodies (MÁK[7], NAV[8], NÉBIH, government offices), in which the proportion of mostly and rather trusting respondents is on average around 55-59 per cent. Among the factors that favourably influenced the trust relations of the responding farmers, the credibility of the given word, expertise and professional independence were emphasized.

To strengthen institutional trust, it may be a good practice to sensitize those working in the administration with a 1-2-month program spent in practice (on a farm).

Regarding the institutions, the already mentioned experienced interviewee claimed that the increase in bureaucracy hinders the completion of farm-related work: *"let there be progress, but the system should be simplified and not complicated,"* he said.

In case of getting out a contract, effective actions are required from the authorities, even sanctioning. The most annoying cases are when the bill is made out, the VAT must be paid after it, but actually there is no income.

The negative opinion on the institutions can be well described with the saying *"the right hand does not know what the left hand is doing"* (50 and 55-year-old, beekeeper). The most frequent complaint was on conveying information, in several cases it was impossible to get information even from the website of the organisation, it is said that *"if my colleague does not warn me, I know nothing about it"* (aged between 55 and 60, chiligrower).

"Let there be progress, but the system should be simplified and not complicated."

[5] Association of Hungarian Farmers' Clubs and Farmers' Cooperatives
[6] National Confederation of Hungarian Trade Unions
[7] Hungarian State Treasury
[8] National Tax and Customs Administration

The village agronomist was praised by several informants, *"they do the very best of them"* (50 and 55-year-old, beekeeper), a *"good agronomist is worth more than gold"* (59-year-old, livestock farmer).

As for the possible communication forms with the institutions (personal or electronic), there were two extremes: the electronic administration (and the digital development of farms) was preferred by the youth, while elder people put personal interaction on the first place. According to a story when one of the respondents had to help his father-in-law (*"who is not a homo digital"* – allowing for some irony in the story), the farmer knowing the farm very well could not even understand the questions, and had difficulties on the website that was not user-friendly at all, these difficulties hindered him in the administration. (Aged between 55 and 60, chiligrower).

In the epidemic we got used to Zoom, Skype, Teams and other videochat sites. One interviewee raised the possibility of using these platforms with the institutions and administrators, as it could combine the advantages of personnel administration with the comfort of the online one (55-year-old, social farmer).

"A good agronomist is worth more than gold."

The largest share of the responding farmers within the FLINT survey, 50.7 per cent, was a member of a farmers' advocacy organization, 20.5 per cent of them were local farming communities aiming at the development of farming, while similarly organized nature conservation and landscape management communities were only 3.8 per cent. Membership in the nature conservation association was also only 4.3 percent. 17.8 percent of the respondents belonged to some professional organization and 16.7 percent were members of a non-governmental organization. Community participation was limited in the case of the sampled farmers, as the activity indicated in the highest proportion, i.e. relocation to local festivals and organization of farm visits on the farm, was relevant only in the case of 16-17 percent. Interns were accepted by 13 percent, and sales at local producer fairs were typical of 12.6 percent.

Appearance in the local producer market, on open days held on one's own farm, in local competitions affected less than 10 percent of respondents.

A so far less emphasized aspect of trust concerns the customers (mainly if the farmer is a producer as well): customer satisfaction is really important for most of the interviewees, and it was also stressed that high-quality products are profitable in the long-term because of the returning customers. One respondent shared her actual dilemma, because she recently got the possibility to put her products on the shelves of a big department store (without doubt a great change instead of going on local markets regularly), but their problem is the re-labelling, they have the fear of losing the trust gained with the quality in the past few years (50 and 55-year-old, beekeeper). Several respondents mentioned the advantages of having a stable group of customers around the farmer, but it seems to have an increased need for shops operated / based on trust, where the farmer or producer could place their products and they were not forced to go to markets because of purely financial reasons (42-year-old, brewer).

Respondents 'perceptions of the future with hopelessness or confidence were also measured on an 11-level scale in the supplementary survey of the HCSO's Microcensus: 0 could be given for 'completely hopeless' and 10 for 'completely hopeful'. The average value of confidence in the future was 6.05 among the total population, while it was slightly lower for those working in agriculture (5.97). Confidence in the future is also related to education, an individual's age, gender, and income status. It decreases with age but increases with educational attainment. In general, men value their confidence in the future higher than women. Respondents with higher incomes are more optimistic about the future. 11.6 percent of those who do not trust their future prospects plan to move abroad within 2 years, 5.9 percent of the moderately hopeful, and 7.3 percent of very hopeful respondents plan to do the same.

Those respondents who did not find typical hopelessness among farmers argued that the situation is much worse in the construction sector (they similarly do not know, whether they will be paid at the end of the work), and as a result of the pandemic tourism and beauty industry was also mentioned as a sector without hope (35-year-old, fruit-farmer and 59-year-old, livestock farmer).

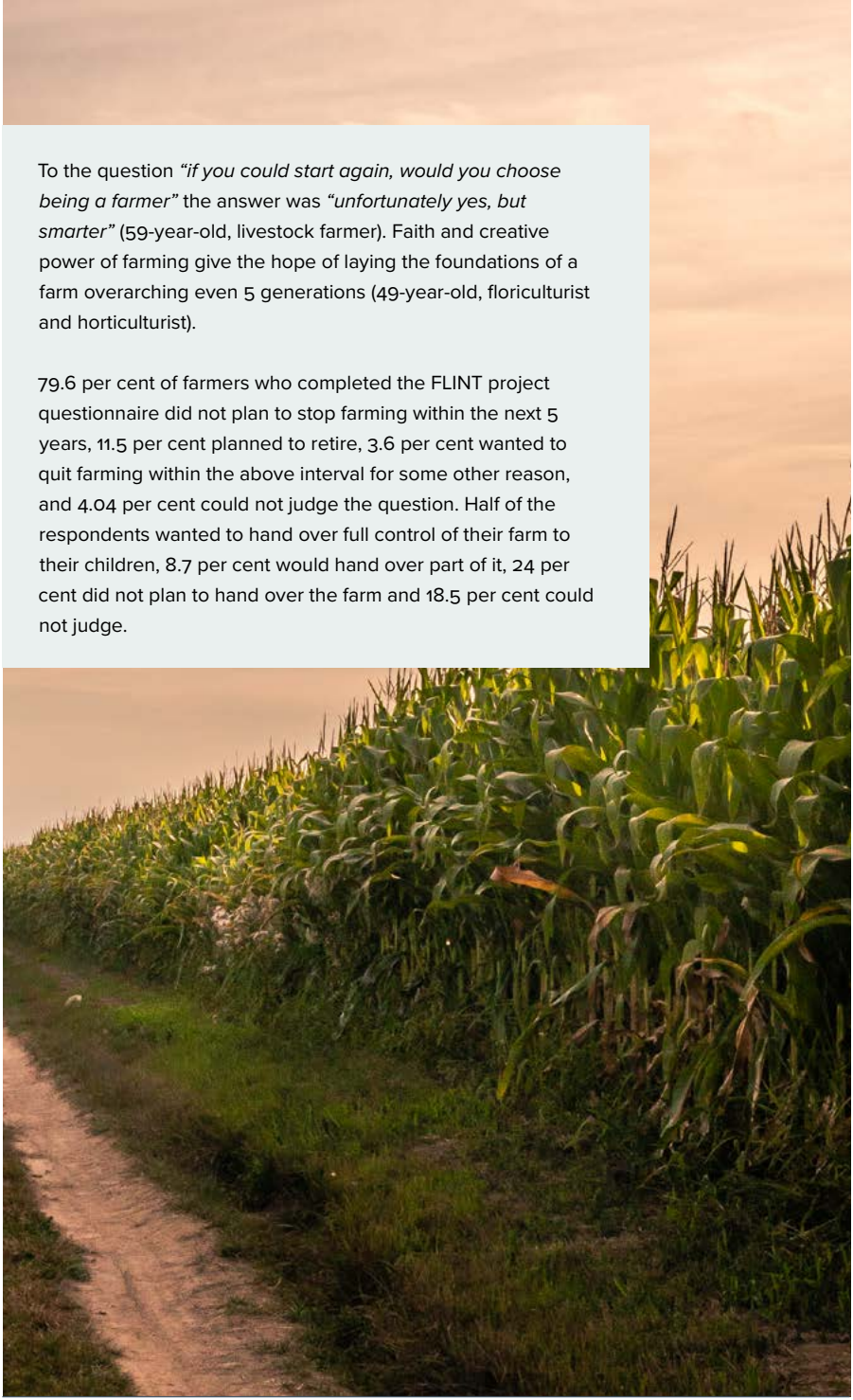
Farmers' expectations of the future are more strongly influenced than the ones in other sectors by the fact that agriculture is a sector exposed to market risks, weather conditions and significantly dependent on subsidies. The interviews revealed that farmers are characterized by fear and anxiety about the future. The problem is that the farmer does not see how the future of his farming will develop, how the regulations will be, what will happen to the farm as he gets older. PG members agreed with the statement that farmers' fears and anxieties about the future are stronger than those working in other sectors with a score of 3.5 on a scale of 5. Some older interviewees told about themselves, while younger ones said of their parents that they "leaned back" when the farm was successfully handed over, while still keeping an eye on how it works (and, in this regard, generational differences are inevitable). If there is no opportunity to pass on the farm, the older farmer has no motivation to further develop; they prefer to downsize the farm, says one of the younger interviewees, but also claims that it is a "life imprisonment" profession. For example, his own parents would also be faced with declining health if they stopped completely (they would not feel like a complete person).

In spite of all the difficulties a farmer faces today, there were several positive reactions regarding the future.

In spite of all the difficulties a farmer faces today, there were several positive reactions regarding the future: although a 36-year-old arable crop farmer used the gambling metaphor for agriculture, giving up farming is not an option for him at all. A shift in profile / portfolio is in progress in several cases (35-year-old, fruit-farmer and 59-year-old, livestock farmer), as they experienced that a new profile was successful for others as a result of the generational renewal.

To the question *"if you could start again, would you choose being a farmer"* the answer was *"unfortunately yes, but smarter"* (59-year-old, livestock farmer). Faith and creative power of farming give the hope of laying the foundations of a farm overarching even 5 generations (49-year-old, floriculturist and horticulturist).

79.6 per cent of farmers who completed the FLINT project questionnaire did not plan to stop farming within the next 5 years, 11.5 per cent planned to retire, 3.6 per cent wanted to quit farming within the above interval for some other reason, and 4.04 per cent could not judge the question. Half of the respondents wanted to hand over full control of their farm to their children, 8.7 per cent would hand over part of it, 24 per cent did not plan to hand over the farm and 18.5 per cent could not judge.



5.
Conclusion

Generally, Hungarian agriculture can be characterized by a fragmented farm structure with a dominant presence of small-scale farms, but, at the same time a process of concentration (with the constant decrease in the number of individual farms) can be observed, of course with inter-sectoral differences. Other important characteristics include an ageing farm population, relatively low profitability and incomes, strong dependency on subsidies, limited access to resources such as capital, land, technology, and skilled labour force, and the low level of horizontal and vertical co-operation.

One of the most protracted and serious problems of the sector is generational renewal, which, in addition to the above-mentioned circumstances, is mainly hindered by the difficulties of handing over a farm, the working constraint due to the lack of a proper pension to be expected by the elderly farmers, generational conflicts, and the falling attractiveness of farming activity and rural life among youth. The distant rural areas, which lean on agriculture the most, suffer from depopulation, lower economic activity, underdeveloped infrastructures, worse living standards, and a higher risk of poverty and social exclusion.

In comparison with the EU average, the educational level of farmers is still low, although there is a considerable improvement among the younger age groups. The lack of proper knowledge and digital skills (and related training and advisory services) is a major barrier to the spread of advanced technologies, thus, to the

ability to manage risks originating e.g. from nature and the market, and to remain competitive. Beyond farm managers, agricultural employees tend to have insufficient skills, low income, and exposure to the seasonality and unfavourable conditions.

There are numerous challenges Hungarian farmers and rural communities are facing, in relation to multiple dimensions of wellbeing. In general, regarding most of the health status and healthcare indicators, Hungary lags behind the EU average, especially in chronic morbidity and mortality, avoidable and preventable deaths, risk factors, public spendings and healthcare resources. The disadvantage of rural areas is even more striking. Beyond all of that, people working in agriculture are exposed to special occupational health risks, such as dangerous environment and tools, physical exertion, and high workload and work peaks. Interviewees highlighted the possible negative effects of getting up early, irregular and unhealthy eating habits, few opportunities for relaxing, lack of health prevention, bad habits like smoking and drinking, and the limited access to healthcare. Despite all of these, the different surveys of subjective wellbeing show that farmers are slightly more satisfied with their health and working conditions than the total population which can be partially explained by the outdoor working environment, close to nature, but it also helps if a farmer is committed to his or her profession.

People working in agriculture are exposed to special occupational health risks, such as dangerous environment and tools, physical exertion, and high workload and work peaks.

In terms of mental health, survey results show that farmers and people living in villages experience positive (happy, calm, peaceful) emotional states to a similar, but slightly lower proportion than the population as a whole. There is no significant difference in the frequency of depressive and discouraged emotional state between the agricultural workers and the entire population: in both cases, more than half of them sometimes feels like that. The level of stress does not show considerable disparities between the mentioned groups too, but, also based on survey results, farmers

mostly report increasing stress, mostly because of the growing concern about weather, prices, bureaucracy, uncertainty about the future etc. Self-identity, self-esteem, particularly the case when a farmer loves his or her job, and the sense of productive and meaningful work is beneficial for physical and mental health – on the opposite side, the lack of pride in farming, due to the low level of social recognition can cause mental problems, as concluded by the Practice Group participants.

Wellbeing is strongly influenced by the personal relationships of an individual. In contrast with the survey results that display the feeling of loneliness slightly less prevalent among agricultural people, interviews shed light on another aspect, i.e. the range of these relationships: farmers may not be alone, but their scope of social relationships is quite narrow. It is a definite need of the younger farmers specifically to have a more qualitative social life. Based on survey results, it can be argued that the level of trust in people and institutions is generally lower in case of people working in agriculture. Farmers often meet malignancy from local people, unfair business situations and excessive bureaucratic burdens from the side of institutions: regarding the latter, it is a crucial problem that farmers have even less trust in the agricultural administrative bodies. According to surveys, membership in organizations and community participation is only characteristic for a minor percentage of farmers.

Considering the farmer's future expectations, according to surveys they have less confidence in the future than the total population.

Considering the farmer's future expectations, according to surveys they have less confidence in the future than the total population: the interviews attributed explicit fear and anxiety to farmers. Regulations, climatic conditions, market processes, the problem of generational renewal all strengthen uncertainty. Around half of the farmers has the intention to hand over the farm to children: taking into account the findings of the interviews, solving this problem indeed contributes to the calmness and balance of farmers.

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Annex:
Social Innovations Table

This annex provides an overview of relevant social innovations and national organizations in farming.

Title of social innovation	**Coordinator** (lead partner) *Keywords: type of organisation*	**Country** (of the coordinator)	**Objective** (Which social challenge does the innovation attempt to tackle?)	**Activities**	**Key target group(s)**
Reintegration of the unemployed population into the community. - Building a system of relations with the surrounding settlements through the local government and public catering.	Tisza-bank Food Processing Start Social Cooperative (Tisza-parti Élelmiszer-feldolgozó Start Szociális Szövetkezet) https://www.termeloikosar.hu/user/128 The Tisza-bank Food Processing Social Cooperative is a social cooperative organized on the basis of public employment with local government membership	Hungary	A local initiative aimed to create a new product and give it social value.	Production of garlic cream with a relatively wide market but few industry competitors.	Unemployed population – through employment. The primary market for the created product is the suppliers of community institutions and restaurants, so the utilization of the product also increases its social value.

Title of social innovation	**Coordinator** (lead partner) *Keywords: type of organisation*	**Country** (of the coordinator)	**Objective** (Which social challenge does the innovation attempt to tackle?)	**Activities**	**Key target group(s)**
Public works program to employ the local population. Provide value-creating work to reduce youth migration. During the joint work, the development and social integration of the community is also continuous, as well as providing space for increasing self-esteem and self-fulfillment skills.	Municipality of Trizs (Trizs Község Önkormányzata)	Hungary	Improving the infrastructural conditions of activities, increasing the level of quality of life. Improving production and setting up a small fruit processing plant by selling home-made products that use 100% local ingredients.	The experience of home-grown vegetable and fruit processing at home has been extended to the community level, so kitchen garden cultivation and processing, as well as the cultivation of herbs, have become the primary task of the villagers as raw materials for making locally made jams and syrups. Products made by the public are marked "Trizsi flavours" and are sold in local shops as well as through a webshop.	Local population. Youth.
"Vidék Kaland" (Rural Adventure) gaining practical experience for urban youth on young farmers 'farms	Agrya	Hungary	Increasing the social acceptance of farmers, and sensitizing urban young people to rural (farming) lifestyle by introducing the operation of agriculture, and the farmers' role in food production	5-day visits made by people aged 18-35 on the farms of practising farmers under the age of 35, with the active participation in the daily farming activities	Urban young people and young farmers
Magyarország legszebb birtoka díj (The Most Beautiful Property in Hungary Prize)	Agrotrend csoport (Agrotrend Group)	Hungary	The aim of the award is to present the agricultural beauties of Hungary, the estates where food production is based. To draw the attention of those farmers and producers who, in addition to their professional work, also keep in mind the beauties of a farm. The award contributes to increasing the prestige of agriculture and the social acceptance of farmers.	Farms that have beauty, practicality and technical parameters that can be evaluated according to the criteria of the call are expected to be nominated for the award.	Farms

Title of social innovation	**Coordinator** (lead partner) *Keywords: type of organisation*	**Country** (of the coordinator)	**Objective** (Which social challenge does the innovation attempt to tackle?)	**Activities**	**Key target group(s)**
Tanyagondnoki szolgálat (Farm/ homestead caretaker service)	Municipalities of settlements with at least 70, and maximum 400 inhabitants living in peripheral or other internal area	Hungary	• to increase equal opportunities for disadvantaged, service-deficient small settlements and homesteads; • improving the living conditions of those living there; • facilitating access to public services and the development of basic social services; • expanding the service functions of settlements; • community development; • achieving a better quality of life.	• Participation in meals (food delivery) • Participation in the provision of home help (Assistance in solving tasks exceeding the physical strength and / or mobility of the needy) • Contribute to the provision of community and social information • Contribute to access to other basic services • Facilitating access to health care (transporting patients to GPs and other health care facilities, substituting medicines, purchasing medical aids). • Transport of children, kindergarteners, schoolchildren, young people • Organizing and assisting community, cultural, sports and leisure events • Assisting in the administration of individual official matters, forwarding the needs of the population • Contributing to the provision of other residential services	Population living on the outskirts of the settlement and other inland areas, regardless of need, age, health status, and social or other factors.
Szimpla Kert (Budapest)	Szimplacity Kft. (limited liability company) http://szimpla.eu/	Hungary	Improving the social connected-ness and market visibility of small-scale producers Increasing the popularity and prestige of farming and local food products	• weekly small-scale farmers' market with the participation of 30-40 producers and 3-4 thousand customers • long-term co-operation with producers, based on strict rules • buffet breakfast and small shop of farm products • additional program elements: concerts and cultural programmes, green fair, flea market, fashion market, dog market, record fair, 'living library'	Directly the farming families through social linkages Guests, buyers Artists; other entrepreneurs (e.g. fair sellers)

Title of social innovation	**Coordinator** (lead partner) *Keywords: type of organisation*	**Country** (of the coordinator)	**Objective** (Which social challenge does the innovation attempt to tackle?)	**Activities**	**Key target group(s)**
Szakmakóstoló Hét	Hungarian Chamber of Agriculture http://nak.hu/	Hungary	Increasing the social prestige of agricultural profession Promoting farming as a career choice	• one-week career guidance program series for students in 5-7 grades • experience-based visits at farmers and agri-food enterprises • agriculture-related family programs	Directly primary school students Indirectly farmers and entrepreneurs
Introducing new services in beekeeping	Mézes Gergő méhészete Beeculture of Gergő Mézes https://mezesgergo.hu/	Hungary	Negative social perceptions Social isolation (economic and financial pressure)	• Honey production • Honey museum • Medical use of bees (apitoxin therapy, beehive-air therapy) and their products (propolis, royal jelly) • Accommodation facilities, guesthouse	Directly: the farming family (stable/steady income, mental wellbeing) Indirectly: the guests with the help of different medical services
Open farms	Orchard of Tamás Lantos and 11 more farms http://nyitottkertek.hu/	Hungary	Negative social perceptions Social isolation	Sustainable and eco-friendly farming Gardens and orchards for demonstrative purposes Preservation of traditional types of fruittrees	Directly: the farming families through different social linkages Indirectly: the visitors (knowledge, attitude-shaping)
Ecovillage in Gömörszőllős	Iván Gyulai and the Ecological Institution Foundation https://www.ecolinst.hu/index.php	Hungary	Negative social perceptions Social isolation	Sustainable and eco-friendly farming Educational centre, knowledge-transfer	Directly: the farmer through different social linkages Indirectly: the followers (knowledge, attitude-shaping)

Title of social innovation	**Coordinator** (lead partner) *Keywords: type of organisation*	**Country** (of the coordinator)	**Objective** (Which social challenge does the innovation attempt to tackle?)	**Activities**	**Key target group(s)**
"Sándor Gazda Udvara"; traditional, self-sufficient farm	"Sándor Gazda Udvara" family business. Hompage: https://www.sandorgazdaudvara.hu/	Hungary	On one hand this initiative gives an insight into people's life of the traditional Hungarian countryside. This opportunity lets the visitors experience a slower paced life, which has a better connection the environment and nature. On the other hand these occasions can create a feeling of interconnectedness in farmers, which helps them and others see their important role in society.	Visitors can try out themselves in making bread in the traditional way, and they can participate in cooking in the hosting family's Beehive oven. Besides that, visitors learn about self-sufficiency and a sustainable way of living in the countryside of Hungary.	There is no specific target group.
National agricultural mechanist competition for students studying in this field of vocational training	Orgainzer: National Agricultural Asset and Machine Distributor Association, "MEGFOSZ – Mezőgazdasági Eszköz – és Gépforgalmazók Országos Szövetsége"	Hungary	The competition aims to give prestige to the agricultural michanist vocational training. It wishes to show the training's importance in creating a better labour supply on the labour market. The competition seeks to provide motivation to students and help keeping the active labour force in the rural areas of the country.	Throughout the competitions the competing teams have to solve a variety of tasks, in the last round of the contest the participants have to show their knowledge bot in theory and in practice. The prize of the competition is a study tour abroad.	Middle school students, how study agricultural mechanics in vocational training.

Title of social innovation	**Coordinator** (lead partner) *Keywords: type of organisation*	**Country** (of the coordinator)	**Objective** (Which social challenge does the innovation attempt to tackle?)	**Activities**	**Key target group(s)**
Annual national award for the best professional in agriculture, "Az Év Agrárembere díj"	AGROTREND Group	Hungary	The prize was established in 2014 and the most outstanding professionals of agriculture were awarded with it. Since, the prize is given annually. The goal of the award is to reward the hard work of people in agriculture, to further motivation and to enhance the prestige of their profession.	Nominees are selected in 10 categories: • Agricultural Mechanics • Agricultural Innovation • Animal husbandry • Processing and Food industry • Sustainable farming • Young farmer • The futures agrarian • Horticulture • Crop production • Pest management Winners are chosen by public vote and by a jury. The awards are given to the winners on a gala evening.	Agrarians whom had reached an outstanding level in their category. Nominees are appointed countrywide.
Agricultural Sales Cooperative, "MEGÉR-TÉSZ"	Agricultural Sales Cooperative, "MEGÉR-TÉSZ" Homepage: https://megertesz.hu/	Hungary	The cooperative aims to carry out sales, coordinate procurements, increase the degree of processing of products, with regard to the production of its members. MEGÉR-TÉSZ is a state-accredited training institution.	The members of the co-operative mostly produce fruits, such as elderberry, cherry, apple, currant and apricot. The cooperation's trainings focus on five main areas: • attitude shaping • voluntary participation in agricultural issues (primarily eco / bio topics) • compulsory training (e.g. fire protection training) • trainings of starting young farmers trainings related to short supply chains (SSC) of the Rural Development Programme.	Agricultural producer members; starting young farmers; professional advisors – especially advisors specialised on ecological farming; other small-scale producers

Annex:
Health status and mental wellbeing of agricultural population in Hungary

The implementation of the European Health Interview Survey (EHIS) is required by Regulation (EC) No 1338/2008 of the European Parliament and of the Council on Community statistics on public health and health and safety at work. The survey, based on a population survey, is conducted every five years in the Member States to have a minimum set of statistics from which to calculate the indicators expected from each Member State, the so-called health indicators. EHIS is a sample survey based on voluntary data. The basic population of the survey, the sampling framework is persons aged 15 and older (hereinafter: adult population) living in private households. The results of the survey were analysed on the basis of the weighted values of the data, which ensured the representativeness of the surveyed sample.

The analysis is based on a comparison of the total population over 15 years of age with the population working in agriculture, forestry and fishing (according to NACE classification) at the time of the survey, or most recently working in these sectors (hereinafter: agricultural population), in all categories of economic activity (e.g. employees, entrepreneurs, unemployed, pensioners, other inactive etc.)

The proportion of those who consider their general health to be poor or very poor is 18.5 per cent among the agricultural population, as opposed to only 9.7 per cent for the total adult population. The proportion of those who rate it as good or very good is only 43.3 per cent, compared with 61.2 per cent in the adult population. 26.7 per cent of the agricultural population stated that their health had deteriorated in the year before the survey, 3.4 per cent reported an improvement, while 69.5 per cent did not notice any change. Among the adult population, the proportion of those with deteriorating health was lower, 19.8 percent, and the unchanged or improving state of health was more significant. A total of 26.2 percent of the agricultural population thought they could do nothing or little for their health, while only 15.6 percent of the adult population said so.

Figure 1: Share of agricultural and total adult population by the perception of individual health (%)

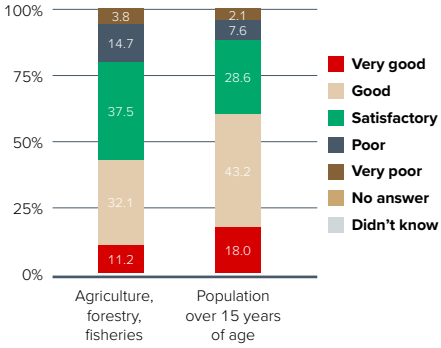
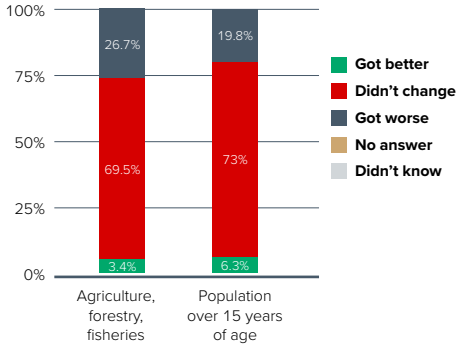


Figure 2: Share of agricultural and total adult population by the perception of change in health status (%)



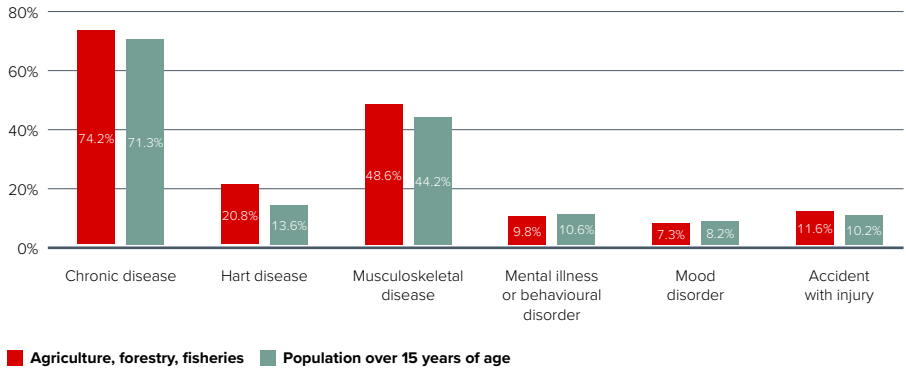
Source: HCSO – EHIS (2019)

55.5 per cent of the agricultural population had a long-lasting illness or health problem, while this was only 46.7 per cent of the total adult population. 13.9 percent of the former group were severely, 25.8 percent were not severely, and 59.8 percent were not at all restricted by a health problem that had existed for at least 6 months. In the case of the latter, the picture is more favourable, as the proportion of those who were not limited by a long-lasting health problem was 73.5 percent. Absenteeism due to health problems occurred in 20.7 per cent of those working in agriculture, forestry or fishing in the 12 months preceding the survey, less than the 29.5 per cent of those working in all sectors during the period under review, which may be due to the fact that farmers or their employees and helpers are less substitutable and less likely to be relegated.

For the combined categories of diseases, 74.2 percent of the agricultural population had chronic disease, 20.8 percent had heart disease, 48.6 percent had musculoskeletal disease, 9.8 percent had mental illness or behavioural disorder, and 7.3 percent had mood disorders. Only the prevalence of mental illnesses and disorders was higher in the general adult population, while slightly lower values were observed for the other illnesses. With minimal difference, but the incidence of injury accidents within the past year is higher for the agricultural population.

22.4 percent of the agricultural population contacted their general practitioner/family doctor (GP) for 12 months or more for their own health, which is only slightly higher than the 21.4 per cent of the total population. Visiting a GP is not necessarily related to illness, but rather means checking one's health regularly, which is why it is definitely a problem if someone does not visit his/her GP at least once a year. The proportion

Figure 3: Prevalence of diseases, disorders and injuries in the agricultural and total adult population (%)



Source: HCSO – EHIS (2019)

of GP visits at least once in the 4 weeks prior to the survey was 53.8 per cent of the agricultural population who visited a GP within 12 months, compared to 47.3 per cent of the total sample, which refers to having more common health problems in the agricultural population rather than being health-conscious.

The proportion of those who consulted a specialist within 12 months was 58.1 per cent of the agricultural population, while it was 62 per cent in the total adult population. However, among the agricultural population, the proportion of those who contacted a specialist at least once within 4 weeks (prior to the survey) was 44.1 per cent, insignificantly higher than the 42.2 per cent value of the adult population. As an inpatient, 14.7 percent of the agricultural population spent at least one night in hospital in the year prior to the survey, compared with 12.2 percent of the total population. 69.4 per cent of respondents registered in the agro-forestry-fishery sector visited a dentist more than 12 months before filling in the survey, a proportion greater than the proportion of the adult population which was 52.5 per cent. Within half a year, the proportion of visits to the dentist among the agricultural population was 12.1 per cent, compared with 26.1 per cent of the adult population.

There may be differences in access to health care. In the 12 months preceding the survey, 6.7 per cent of the agricultural population received access to medical care late or in a limited way due to excessive waiting times, 3 per cent due to the long distance between their place of residence and the health care institution, and 2.5 per cent due to financial reasons. Among the total adult population, waiting time was a barrier to access for 12.4 percent of the respondents, and financial reasons for 3.9 percent of them.

Distance was a barrier to access for 2.7 percent of the respondents, so for slightly less people than in the agricultural population. Within the agricultural population, material barriers hindered access to dental care by 8.7 percent, drug purchases by 6.4 percent, and access to mental health care (e.g., psychologist, psychiatrist) by 1.2 percent. Among the adult population, the picture was more favourable, albeit very slightly, in the case of dental care and the purchase of medicines: financial impairment was 8.1 and 4.3 per cent, respectively, while in the case of mental health services it was almost the same as in the agricultural population, 1.3 per cent.

In the case of social security-funded GP / family paediatric and dental care, the agricultural population is slightly more (77% vs. 74.7% and 59.5% vs. 52.9%, respectively), with outpatient and inpatient specialist care much more (61.1% vs. 48.5% and 42.2% vs. 29.7%, respectively) satisfied or very satisfied than the total adult population, and with the exception of general practice (6.4% vs. 5.9%) a smaller proportion of the agricultural population is dissatisfied or very dissatisfied with publicly funded care (7.3 to 13.5% vs. 10.4 to 24.4%). A significant proportion of the population did not have personal experience with private services at the time of the survey, and the agricultural population used private health care even less. There are no significant differences between the two groups in terms of satisfaction with privately funded healthcare services.

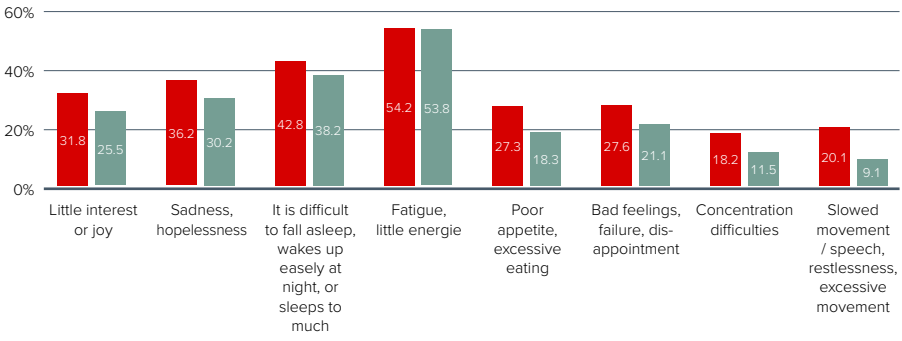
The impact of lifestyle on health has been proven countless times. 54.6 per cent of the agricultural population do less than 150 minutes of non-work-related physical activity (walking, cycling, leisure exercise) per week, while 57.4 per cent of the total adult population do at least 150 minutes. A 16.8 per cent proportion of the agricultural population, higher than the 14.4 per cent share of the adult population, meets the criteria of at least 150 minutes of work-related or aerobic leisure activity as recommended by the WHO. The proportion of physical activity adequate only for work is 47 per cent for the agricultural population, 32.5 per cent for the adult population, while the proportion of the agricultural population meeting the requirements of aerobic exercise is only 6.9 per cent, and 18.2 per cent for the adult population. Among the agricultural population, the proportion of those who do not meet the recommendations for neither work nor leisure time activity is lower, i.e. it is 29.3 per cent, compared to 34.9 per cent of the total population. Thus, it can be seen, that the population working in the agricultural, forestry and fisheries sectors performs a significant amount of physical activity, from which, however, the more frequent occurrence of musculoskeletal diseases cannot be independent.

86 per cent of respondents representing the agricultural population stated that they did not follow any diet (sugar-, gluten-, lactose-, milk-protein-free, energy- or salt-poor, vegetarian or otherwise) that was slightly higher than 81.4 per cent of the total adult

population. The amount of daily fruit and vegetable consumption is 2.1 portions among the agricultural population, while it is only 1.89 portions for the adult population. In terms of smoking frequency, 27.6 per cent of the agricultural population smokes daily, 1.1 per cent are occasional smokers, 15.2 already quit, and 55.9 have never smoked. Among the adult population, the proportion of daily smokers is lower at 24.5 per cent and the proportion of occasional smokers (2.3 per cent) and quitters (17.7 per cent) is slightly higher than their share within the agricultural population, while the proportion of perennial non-smokers is almost the same at 54.2 per cent. Of the agricultural population, 41.2 percent of daily smokers smoke more than 20 cigarettes a day, compared to 33.6 percent of the total population. Overall, therefore, the frequency and intensity of smoking is higher in the agricultural population. Based on the frequency of alcohol consumption, 5.4 percent of the agricultural population can be classified as heavy drinkers, 19.3 percent as moderate drinkers, and 37.8 percent as infrequent drinkers, while 36.9 percent do not consume alcohol at all. The proportion of the latter group in the total population is slightly lower at 28.7 per cent, but a higher proportion of 44.9 per cent is among those who rarely drink alcohol.

The European Health Interview Survey also includes questions on mental well-being. Among the agricultural population, in the two weeks prior to the survey, the incidence of little interest or joy, sadness, hopelessness, difficulty sleeping or the problem of sleeping too much, fatigue or low energy, poor appetite or overeating, feelings of failure or disappointment, lack of concentration for at least a few days was higher than in the general adult population. In the two weeks before the survey, the agricultural population felt calm and relaxed, active and lively, fresh and relaxed, and felt that their days were full of interesting things for a smaller part of the time. Satisfaction with life was rated on an eleven-point scale by the agricultural population at an average of 7.35, at a negligible level below the average of the total adult population of 7.57.

Figure 4. The prevalence of mental difficulties in the agricultural and total adult population (%)



Source: HCSO – EHIS (2019)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