

Mapping Report on Challenges



GREECE



**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: GREECE

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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' that aims at mapping social innovations in farming and making these social innovations more accessible for farmers and the larger community, with the prime purpose of improving the overall wellbeing of individual farmers, farming households and the larger rural community. With this purpose in mind, six 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 has been selected for deeper elaboration and analysis. In addition, a set of social innovations has been mapped that aims 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 analyzed further on their effectiveness and made more accessible through innovate communication.



In addition, all six 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 GREECE. After this introduction, PART 2 'Methodology/data gathering' will present the main methodological steps undertaken in mapping and analyzing social challenges and innovations in the country. PART 3 'Description of main challenges' will provide a general introduction to the main challenges Greece is being confronted with. 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 11 important social challenges in Greece that have the explicit aim of improving the overall wellbeing of individual farmers, farming households and rural communities.

2.

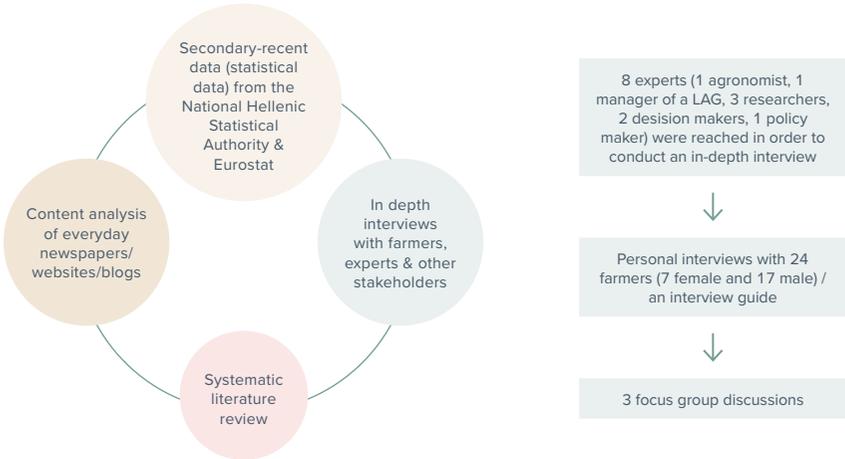
Methodology/ data gathering



The methodology applied for the creation of this deliverable entailed a **mixed method approach**, both desk research and field research (Fig.1). The first step towards the mapping report was to gather secondary data (recent statistical data at national level) from the National – Hellenic Statistical Authority and Eurostat. The second step referred to a systematic literature review from national and international scholarly papers, published reports, books etc. A third step involved a content analysis of issues identified at the level of public discourse in the country (newspapers/websites/blogs etc) that discuss social challenges in rural Greece. AUTH took over all of these first steps. In ANNEX I the mapping of the 11 social innovations is presented, based on secondary research only.

The desk research for the **social challenges was validated by key-informants-experts, farmers and other stakeholders**. A set of semi-structured interviews (4th step) and three focus group discussions were used in order to cover literature gaps and at the same time validate the outcome of the desk research.

Fig. 1: Basic methodological steps followed



Greek team members (both AUTH & STEVIA Coop) conducted the abovementioned field research (4th step) with farmers and experts to support the basic mapping but also to narrow down the challenges. The majority of the meetings (Annex II – Table I) took place online due to the covid-19 pandemic; all ethics requirements were followed.

The Greek team (AUTH & STEVIA) worked together and co-decided to identify two specific groups of farmers (one at regional level and one at national level) to support the aims and scope of the FARMWELL project.

One of the groups of farmers selected (at regional level) is the **STEVIA Hellas Coop-agricultural cooperative located in Central Greece** (Fthiotida and Voiotia) region (see map 1 on the right). The cooperative was established in 2011 and currently has 57 farmers. The criteria for the selection of this group were: (a) STEVIA is already a partner in the project hence farmers can be stimulated, engaged and reached easily, (b) physical meetings are easier to arrange, (c) they consist of a coherent group facing similar problems and challenges in terms of their personal wellbeing.

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Another group of farmers that was reached and considered for selection for the establishment of the FARMWELL PG was a female group working with olive oil (producers, agronomists, distributors, nutritionists etc); an informal community called **“Women in Olive Oil – Greece”**. It’s a group of women that during the first lockdown in Greece decided to come together in order to tackle social distancing and isolation, help and support each other and share ideas and visions. Currently there are 110 female farmers in this community spread all over Greece (map 1).

Map 1: Two Groups of farmers identified

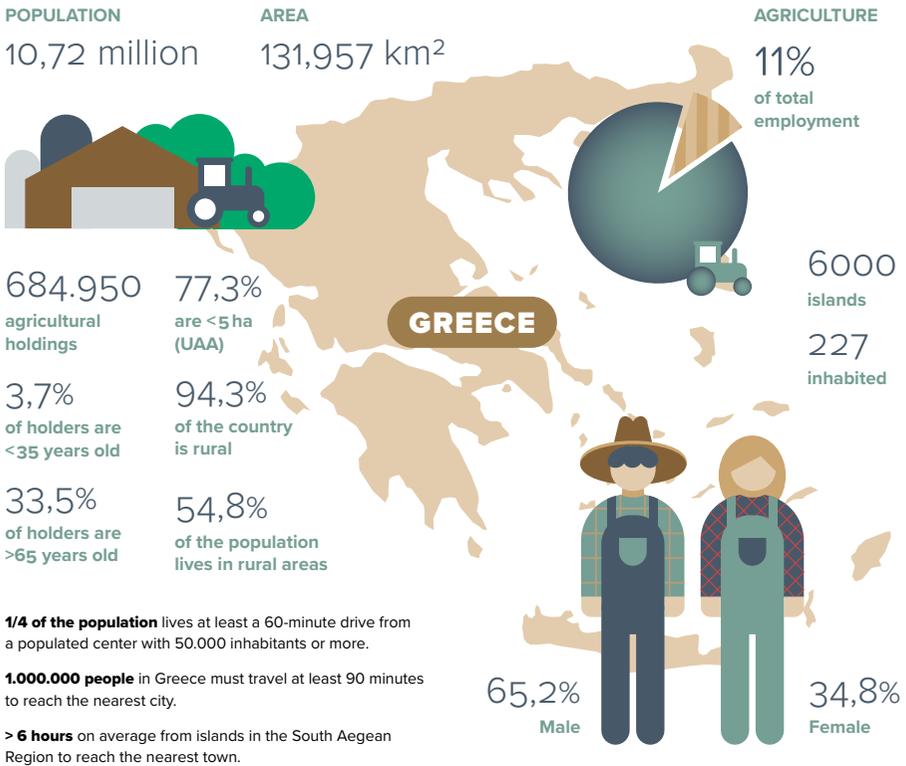


In fact this group in Greece is part of a larger network of women in olive oil (with 2000 members internationally, whom also help communicating the project worldwide). The criteria for the selection of this group were: (a) bring a gender perspective to issues of social wellbeing, (b) the community itself presents already a social innovation in terms of providing an online (educational) platform for women to meet on a “safe” environment, participate on seminars, talk, ... (c) women are reaching their peers at a national-international level thus having an open mind to innovations that might help them, (d) it is a very interesting group that builds a sense of community and makes women farmers feel stronger and inspired by sharing stories about their lives in the countryside and their craft. This sub group could help the FARMWELL PG meetings in terms of gender perspective. In addition they are already familiarized and use the Internet and meeting platforms, social media etc; therefore could easily organize online meetings instead of physical ones and provide useful incentives to the works of the already established PG of the Stevia cooperative, which is a mainstream agricultural – mixed cooperative that will basically meet in person (in a covid-19 free environment).

3.

Description of main social challenges – national level

Map 2: Greece at a glance –major figures



Sources: European Commission Statistical Factsheets, Greece, June 2020, OECD, Territorial Reviews, Regional Policy for Greece Post 2020

3.1. Major figures for the country

This reality of Greek rural areas and the introduction of pluriactive rural households; rural families that employ several members of the household to different parts of the economy from the primary sector to 2nd (manufacturing of food products) and 3rd sector (services mainly related to tourism-rural tourism), makes imperative the need to make a distinction between those that live in rural areas (rural population) and those exclusively employed in agriculture (farming population). According to the Hellenic Statistical Authority people living in settlements less than 2,000 residents are considered as rural population (which is currently 54,8% of the total population of the country); whereas those employed in the primary sector are defined as farming population (11% of total employment of the country). The latter has a downward trend mainly due to ageing (which will be elaborated onwards as one of the great challenges the country faces).

Recently a report by the National Rural Network (2021) provided a very elaborative info-graphic of main figures for the country (see map 2 above).

3.2. Overview of the socio-demographic characteristics of the farming population (gender and age)

According to the latest published data¹ of the Hellenic Statistical Authority (2016) in Greece there are 684,902 farming holdings with 3,152,582 ha agricultural land out of which 34.84% are run by women. Regarding the gender distribution of the farming population, we observe **an increase of female farm holders (“feminization of Greek agriculture”) from 2000 onwards in relation to the downward trend of male holdings** (Fig 2). In Table II (ANNEX II) more figures on Statistics on female farmers in Greece and in the EU are presented. The highest percentage of female farmers is presented in the regions of the North Aegean (48.28%) and Western Macedonia (47.8%), followed by the Region of Eastern Macedonia and Thrace (40.56%). In these areas albeit women’s official designation as farmers it is still the male member of the family (occupied officially in coal mines, tourism or abroad) that has the management and decision making of the farm. Despite the “feminization” of Greek agriculture according to numbers and statistics, there is ample research that advocates on the actual social integration and appreciation of female farmers. Koutsou et al. (2011) for example define them as “present

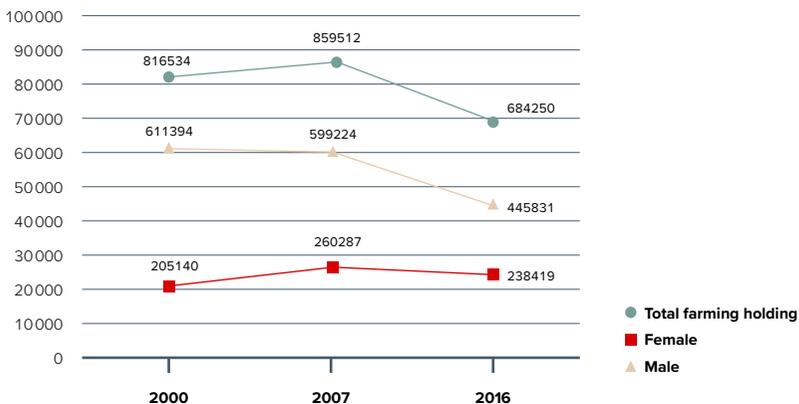
¹ Minor inconsistencies in numbers might appear in the text due to different calculation between Eurostat and the Hellenic Statistical Authority

– absent” farmers, meaning that women are present in papers; but really absent from any decision-making and actual power. Other cases of “false” feminization fall within the family’s strategy to take advantage of EU-funded agricultural subsidies (succession of the farm and additional bonus when a female member takes over the farm) and other projects supporting female entrepreneurship (Gidarakou et al., 2008).

Despite the “feminization” of Greek agriculture according to numbers and statistics, there is ample research that advocates on the actual social integration and appreciation of female farmers.

Fig. 2: Evolution of total farm holdings in Greece, by gender

Source: Hellenic Statistical Authority & own elaboration



Regarding the **age distribution** of the farming population and in comparison to the Greek population in general, it is worth noting that over one third of persons in farming are aged over 65 years old. The latter is one of the most crucial social challenges that the country has to face. Only 51% of the farming population is under 54 years old and 35.6% are over 65 years old. In comparison, 69% of the total population is under 54 years old and only 19% are over 65 years old. Ageing farmers also occupy a great percentage (23.33%) of the utilized agricultural area in the country (Table 1).

Table 1: Farm holdings and utilized agricultural area by age classes of holders in Greece

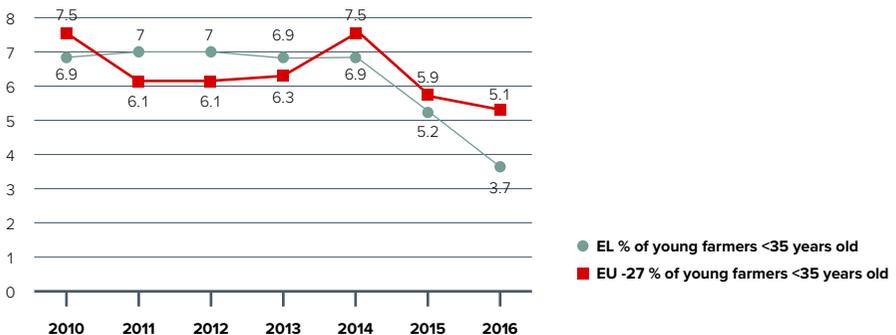
Source: Hellenic Statistical Authority (2016)

Age (years)	Farm holdings	Utilized Agricultural Area
15-24	2,511 (0.36%)	154,057 (0.49%)
25-34	21,469 (3.1%)	1,686,567 (5.35%)
35-44	80,655 (11.7%)	5,918,869 (18.77%)
45-54	151,186 (22.1%)	8,698,167(27.59%)
55-64	179,946 (26.2%)	7,575,084(24.03%)
Over 65	248,483 (36.3%)	7,355,673 (23.33%)
TOTAL	684,902	31,525,821

The ageing of the farming population is highlighted also in a recent report of Eurostat (Corselli-Nordblad and Strandell, 2020). Data show that the self-employment share among people aged 65-74 years in Greece is close to two thirds and it is linked, in part, to the high proportion of this workforce being elderly farmers who continue to work, often on very small, family-based, subsistence farms. Overall, Greece has a very small 3.7% percentage (and declining) of young farmers (<35 years old) in comparison to the EU-27 (see Fig. 3).

Fig. 3: Young farmers <35 years old as % in the total farming population (Greece-EU)

Source: Eurostat & Hellenic Statistical Authority & own elaboration

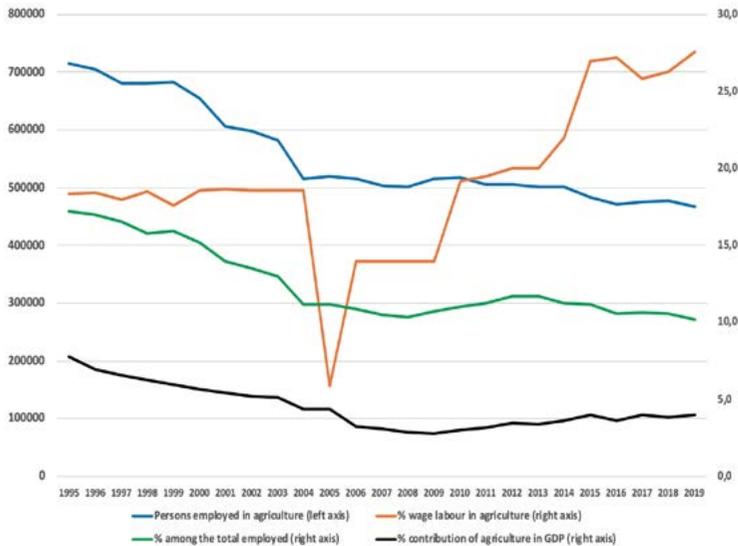


3.3. Overview of the socio-economic characteristics of the farming population

In 2016, from the total of 2,883,152 employed in agriculture, 40.52% were head of the farms (and family members) and 30.93% permanent field workers. The rest (22.11%) are part time workers. What is worth mentioning according to Papadopoulos et al. (2021) is that the wage labour in agriculture, albeit the drop between the year of 2004-2008, reached a 27.5% of the total agricultural employment in 2019 (Fig. 4). The latter is indicative of the migrant labour force in the country that supports the primary sector for many years. In a recent work of Papadopoulos and Fratsea (2021) migrants (internal or international) in Western Greece were researched in terms of how they perceive their wellbeing in the rural. It is interesting how contradicting perceptions exist between locals and migrants: locals share a pride and place attachment appreciating the qualities of rural living (close to nature) but at the same time social challenges of **depopulation and abandonment were raised**. Immigrants from Bangladesh and Pakistan articulated the fact that they do not participate in the everyday social life of the local community. Overall wellbeing in these rural areas is closely related to aspirations that have constructed an idealistic view, not always reflecting reality.

Fig. 4: Evolution of agricultural employment and contribution of agriculture to GDP (1995-2019)

Source: Papadopoulos et al., 2021



Albeit all the re-organizing of Greek agriculture, it is still based on small, dispersed family farms (average size 4.65² ha). In fact, small-medium sized farms (up to 20 ha), constitute approximately 95% of Greek farms (see Table 2). The largest change has been a decrease in farms sized 5 to 19.9 ha and in the “less than 5 ha” category, contributing to a reduction by 22% in the total number of farms from 2005 to 2016 (see Fig. 5).

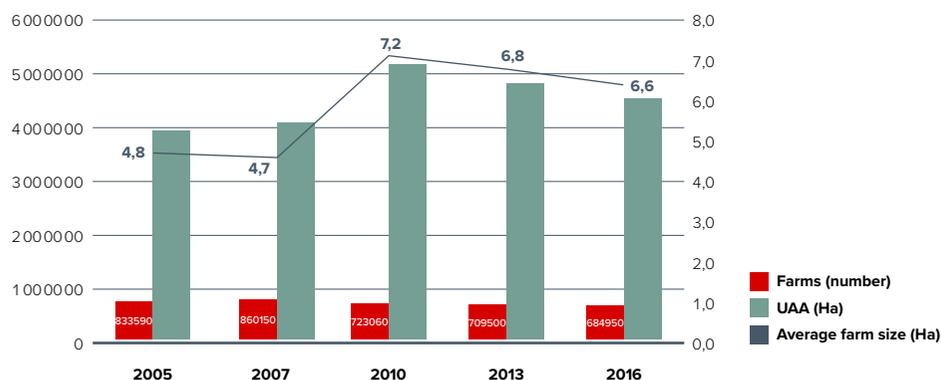
Table 2: Agricultural holdings (in thousands) by agricultural area

Source: Hellenic Statistical Authority & EUROSTAT

Land (ha)	2005	2007	2010	2013	*2016
Zero	5,43 (0.65%)	6,03 (0.70%)	6,19 (0.86%)	5,91 (0.83%)	6,2 (0.9%)
Less than 5	630,97 (75.7%)	649,11 (75.5%)	550,98 (76.2%)	538,44 (75.9%)	523,44 (76.4%)
From 5 to 19.9	161,97 (19.4%)	167,65 (19.5%)	133,35 (18.4%)	132,08 (18.6%)	125,85 (18.4%)
From 20 to 49.9	28,21 (3.4%)	30,25 (3.5%)	25,52 (3.5%)	26,2 (3.7%)	23,41 (3.42%)
From 50 to 99.9	5,53 (0.66%)	5,86 (0.8%)	5,48 (0.76%)	5,43 (0.77%)	4,92 (0.72%)
Over 100	1,48 (0.18%)	1,25 (0.15%)	1,54 (0.21%)	1,45 (0.20%)	1,13 (0.16%)
TOTAL	833,59	860,15	723,06	709,5	684,95

Fig. 5: Evolution of farm holdings, utilized land (UAA) and farm size, 2005-2016

Source: Papadopoulos et al., 2021



² Eurostat on the other hand refers to 6.65 ha average size for Greece (this inconsistency results from the different figures regarding the utilized agricultural land and not the total number of farm holdings)

Regarding sub-sectors of the farming economy and according to the latest available data (ESYE, 2018), vines, annual crops and irrigated crops have been reduced, compared to 2013 and there is a slight increase in tree crops. In addition, there is a decline in the number of livestock farms for all animal categories. However, the number of farm animals has decreased for sheep and goats, has increased for pork and poultry, and has remained approximately the same for bovine. The following three tables present the farming specialization of agricultural holdings and the main agricultural crops cultivated in Greece (see Tables 3, 4, 5).

Table 3: Farming specialization of agricultural holdings in Greece

Source: Hellenic Statistical Authority (ESYE, 2018)

Type of holding	%
Agricultural	82.2
Mixed	15.4
Livestock	2.4

Table 4: Main agricultural crops in Greece

Source: Hellenic Statistical Authority (ESYE, 2018)

Agricultural crop	Production (tons)
Wheat	1,261,000
Cotton	860,000
Tobacco	31,000
Grapes	300,000
Olive oil	328,000
Oranges	745,000
Lemons	78,000

Albeit all the re-organizing of Greek agriculture, it is still based on small, dispersed family farms.

Table 5: Main livestock production in Greece

Source: Hellenic Statistical Authority (ESYE, 2018)

Animals	Production
Sheep	8,909,000 units
Goats	3,942,000 units
Honey	1,674,000 beehives
Bovine	626,000 tons
Fishing	81,920,000 metric tons
Aquaculture	129,000 metric tons

3.4. Overview of the evolution of the farming sector

Agriculture in Greece represents today about 4% of the total GDP after a downturn since 1995-2006 but onwards returned to rather stable pathways (see Fig.6). Most agricultural farms are in Central Macedonia (95,187 farms), in the Peloponnese (88,221 farms) and in Crete (86,961 farms) and most agricultural land is in Central Macedonia (629 thousand ha) followed by Thessaly (375 thousand ha) and Crete (364 thousand ha) (ESYE, 2018).

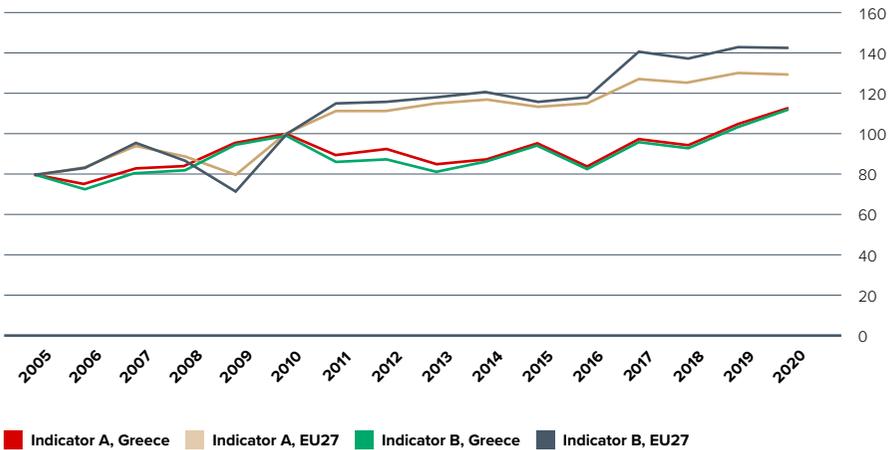
Despite the modernization of Greek farms, strong links still exist between the family and the farm. Since Greece's entry to the European Economic Community in 1981, the agricultural sector has responded to a new set of price signals and has constantly undergone adjustments and changes (Polopolus, 1989). At present, Greek agriculture is heavily subsidized by the Common Agricultural Policy (CAP), with controversial results. For example Greek agriculture is still dominated by small farms (Koutsou et al., 2011), as the CAP has contributed in prolonging their existence and retaining, through agricultural production subsidies, extensive production systems in mountainous and less-favored areas. Many other fundamental problems of Greek agriculture are perennial and persistent: fragmented agricultural holdings (small parcels geographically dispersed may constitute one farm), the underemployment of human resources, the limited amount of irrigated cropland in relation to the total land area. As the Greek economy has developed over the past decades, agricultural production has increased in absolute magnitude, but it has also become less important in relation to total employment or percentage of Greece's Gross Domestic Product (GDP). Part-time farming and distant farming has become more common, as well as pluriactivity and the development of tourism in many areas that were previously predominantly based on agriculture.

The Greek agricultural sector ranks tenth among EU-28 member countries in terms of the total value of agricultural production at euro 6.1 billion in 2020 (according to Eurostat). The total value of agricultural production (not including subsidies) follows an upward trend, which continues even during the years of the financial crisis (2008 and onwards).

The importance of Greek agricultural production, both relative to the rest of the EU and in terms of contribution to Greek GDP, is overall shrinking, although the picture is changing during the crisis. Greek agriculture has shown a poor performance relative to the rest of EU. The relative importance has been increasing since the financial crisis of 2008/2009. The share of Greece's agricultural output in EU-27 decreased from 3.3% in 1993 to 2.6% in 2015. Similarly, the growth of farm income, both in terms of income per worker (indicator A, index of the real income of factors in agriculture per annual work unit) and in terms of entrepreneurial income (indicator B, index of real net agricultural entrepreneurial income per unpaid annual work unit), has followed disparate paths from similar EU indicators, especially after 2009 (Eurostat) (see Fig. 6).

Fig. 6: Agricultural income in Greece (indicators A (agricultural factor income/annual work unit) and B (agricultural entrepreneurial income/non-salaried annual work unit), Index 2010=100

Source: Eurostat, 2020



3.5. Main social challenges and needs the farming population is being confronted with

Amidst an inconsistent social and economic environment (economic crisis & covid-19 crisis), agriculture and rural areas in Greece have manifested a slight resilience (in comparison to the urban), both real and narrated. In fact, rural areas have been portrayed as idyllic, stress-free, resilient and as a refuge in times of the crisis, full of employment opportunities (Anthopoulou et al., 2019). Still, rural areas and rural families are facing major social challenges, not only economic hardships, but also lack of access to health care, poor educational services or social support (especially the mountainous ones). This may also explain the stories of failure and/or struggle in adapting to the countryside for newcomers, who left the city due to job loss or improving their overall life quality. These difficulties, especially unsatisfactory access to health care and educational services, together with the lack of accessibility to public services (old road network, energy poverty, inadequate broadband infrastructure), are underlined by recent empirical research when referring to the wellbeing in the rural (Papadopoulos and Fratsea, 2021; Figueiredo et al. 2020). The lack of sports equipment and sports facilities in schools in rural areas, as well as the fact that the rural population is less educated in health issues is also linked (Mavrakanas et al., 2009) to the highest percentage of child obesity in the rural compared to the urban. It is indicative also how public discourse highlights some of the aforementioned challenges in rural Greece (see Image 1).

Image 1: Content analysis of article titles in Greek published newspapers in the past year (size of word shows frequency of appearance)



3.5.1. Depopulation of rural areas

An overall feeling of depopulation or abandonment hereby dominates local people's narratives about well-being in rural areas in Western Greece. This depopulation leads to a number of social challenges and affects social, mental and physical wellbeing.

It is estimated (Corselli-Nordblad and Strandell, 2020) that by 2050, more than two thirds of the EU Member States are going to have an old-age dependency ratio (>50.0 %) meaning that there are going to be less than two persons of working age for every person aged 65 <. Greece (along with Italy and Portugal) is among the countries of which the old-age dependency ratio is projected to reach a level of 68.1%. Recent reports for the overall population argue that this ageing is due to the rise in the life expectancy and to the downturn of birth. The mountainous rural areas along with the islands are ageing faster compared to other areas in the country (Kotzamanis, 2020). An overall feeling of depopulation or abandonment hereby dominates local people's narratives about well-being in rural areas in Western Greece (Papadopoulos and Fratsea, 2021). This depopulation leads to a number of social challenges and affects social, mental and physical wellbeing.

3.5.2. Ageing of farmers

The farming population is ageing alongside with the ageing of the country's total and rural population. Albeit the CAP measures³ focusing on generational renewal, by providing incentives for new entrants into farming, the structural problem of ageing of farmers still exists in the country. The latter has a serious impact on the diffusion of innovations and the adoption of new practices in agriculture. In addition, elderly farmers can't work in an efficient way with heavy machinery and farming tasks that need considerable physical strength (physical well-being). It goes without saying that this ageing creates also a heavy burden in the health services and other age-related services that have to be provided in the rural. It also challenges the overall vibrant future of rural areas in the country. The regions that seem to suffer the most from these dynamics are the regions of Epirous (predominantly rugged and mountainous), Stereá Elláda (where the group of farmers for the PG is identified) and Peloponnesus (Greek Ministry of Agriculture, 2021).

Ageing creates also a heavy burden in the health services and other age-related services.

3.5.3. Farm Women's Identity and Social integration

The "hidden" dynamic of women in agriculture and in rural areas has been one of the main debates both at an academic level and within public discourse (Tsiadou and Partalidou, 2020). Despite their contribution to the family income, women have been treated as an invisible force, housekeepers and mothers and not as real farmers; their work is invisible, seasonal and usually part time and/or unpaid. They have smaller farms (under 2 ha) and poor agricultural education/training. Their farms are specialized in crops with low productive output and many perform some other income generating activities, especially agritourism or handicraft (Iakovidou et al., 2012). The overload of work poses a great threat to their wellbeing, in addition to the acceptance of their role as real farmers.

Despite their contribution to the family income, women have been treated as an invisible force, housekeepers and mothers and not as real farmers; their work is invisible, seasonal and usually part time and/or unpaid.

³ "Start-up aid for Young Farmers"

3.5.4. Job dis-satisfaction & happiness in the rural

The life dis-satisfaction expressed by Greek people aged 65-74 was amongst the highest within the EU (Corselli-Nordblad and Strandell, 2020). Greeks feel lonelier and more socially isolated compared to Western and Northern Europeans (JRC, 2018). Loneliness is associated with a higher mortality risk, which is equivalent to that of obesity and the habit of smoking. The JRC research was based on two indicators: subjective feelings of loneliness (10% report being frequently lonely) and frequency of meetings with friends (43% reported social isolation). In Greece the most recent report on the impact of covid-19 (Anastasiou and Dyken, 2021) has highlighted the geographical dimension of social isolation (social and mental loneliness). People living in islands and in mountainous rural areas exhibited higher rates of loneliness and stress due to the covid-19. However, specific macro data for the farming population does not exist. Some case studies advocate on these issues but at regional level.

Recent research on the job satisfaction of 182 new entrants into farming (under 40 years of age) in the region of Central Macedonia, highlights the fact that the farming profession gives a sense of freedom and achievement, adding to their mental health (Papadopoulou et al., 2019). For example, young farmers express their satisfaction “to work independently of others without being controlled”.

3.5.5. Farm labour accidents and other health issues

Farming is an occupation in which workers bear a significant amount of risk. Farmers have one of the highest fatality rates among occupations, approximately ten times the average for all workers (Nastis et al., 2013). In addition, farmers have the highest risk of low back pain among all professions. Interestingly, despite mechanization and other changes in farming production technology, the finding of the highest low back pain rates among professions is consistent for developed and developing countries and has also been documented for Greece. Furthermore, farmer’s pesticide exposure during application has been well documented in the literature. Data for Greece indicate that a significant number of farmers, 46% according to Nastis et al. (2013), do not wear the recommended protective equipment and do not take the recommended proper disposal measures during the application and handling of pesticides. Finally, the percentage of smokers in the farming population is found to be higher (54%) than the percentage of smokers in the Greek adult population (40%), a percentage that is already the highest in the European Union.

3.5.6. Social exclusion of migrant field workers

Foreign farm workers have been supporting Greek agriculture (especially intensive farms) since the '90s. From a recent research in Western Greece, focused on groups such as Romanian migrants, Syrian refugees, narratives show that many migrants confess that at times they feel like “strangers” in the place they have settled in. Sometimes, they feel socially excluded and able to communicate only with other migrants, with whom they share a code of “communication”. Thus, they sometimes feel detached from the local rural community (Papadopoulos and Fratsea, 2021).

3.5.7. Impoverishment

Despite imaginations about a rural idyll, living in the countryside might as well entail hidden forms of poverty and even hidden forms of homelessness (precarious housing conditions); such as poor living conditions for migrant field workers and overcrowding, as well as forced cohabitation sharing of a dwelling with relatives or friends for counter-urbanites. Poor conditions in the family home, the inability to find decent employment (in farming or outside farming) has resulted in new forms of exclusion and poverty for people returning to the village (Anthopoulou et al, 2019). From a recent report⁴ it appears that per capita GDP in rural areas is at low levels, highlighting high levels of impoverishment. Using as a reference the year 2016 (most recent data) per capita GDP in rural areas was at 55.5% of the average ratio for the whole EU (when at country level was at 68.5% of the EU ratio). The average income of the rural population is among the lowest in the EU (only higher from Hungary, Bulgaria and Romania). At national level a 31.8% of the total population (2018) is at risk of poverty (EU 21.8%) whereas in rural areas this gets even worse reaching 35.2%, (EU 23.5%). A large proportion of the self-employed in the agricultural population (most of them professional farmers) have a very high poverty rate (31%); much higher than their counterparts in the rest of the country, but still lower than the average poverty rate. Retirees have the same poverty rate as the self-employed, however, because they are the largest portion of the population, they also make the largest contribution to poverty. Education has been identified as a proxy for poverty risk in addition to the school dropout. People between 18-24 that have not finished school are up to 8% of the total population whereas same figure for urban areas does not exceed 3%. NEETs (Not in Education, Employment, or Training') therefore are highly connected to degree of rurality (Alexopoulos et al. 2020).

⁴ wellbeing and poverty were measured by indicators such as per capita GDP, % of population at risk of poverty, number of doctors per 1000 inhabitants, level of education and ratio of NEETs.

4.

Analysis of selected themes in social challenges

4.1. Prioritization of the two-2 topics

From the previous steps of the desk research several social challenges have been identified. Those 13 challenges (Annex II – Table III) were rated on a Likert scale for their importance through an on line questionnaire among a group of academics & policy experts. Farmers and other stakeholders further validated this outcome during 3 focus group discussions. In Table 6 we prioritized the challenges according to the overall outcome of this process. As we can see the most important social challenges for the experts were the *“Absence of Training & Advisory Services For Farmers”* followed by *“Ageing of Farmers”* and overall *“Depopulation of Rural Areas”*. *“Farm Women’s Social integration/identity”* and *“Small & Fragmented Land Parcels, Lack of Economies of Scale”* were also identified as being the most important challenges. Challenges rating from 2.5 and higher were not introduced to farmers for validation (1 totally agree, 5 totally disagree). The absence of training and advisory services for farmers (that received the highest rating 1.6) was perceived as the root cause for several social challenges, thus embedded in both the two topics-social challenges finally selected.

Although the fact that small fragmented land and lack of economies of scale appears also very important (2.4), this was not validated by farmers as affecting their wellbeing. From this prioritization, 2 topics-themes (social challenges) have been identified as more relevant to the FARMWELL project and worth introducing to the two group of farmers identified for participating at the PG meetings: (1) Ageing of farmers (overall depopulation of rural areas) and (2) Farm (rural) Women’s Social integration/identity. The selected themes are onwards analysed.

Table 6: Social Challenges (at national level) related to wellbeing of the farmers and the rural family

a/a	Social Challenges (at national level)	Average Rating (1 totally agree, 5 totally disagree) by experts (Academia & policy makers)	Validation by farmers and other stakeholders during the 3 focus group discussions
1	Lack of Access to Health, Educational, Cultural & Public Services	2.8	-
2	Small & Fragmented Land Parcels, Lack of Economies of Scale	2.4	Not validated
3	Absence of Training & Advisory Services For Farmers	1.6	YES – but validated as a root cause for many challenges
4	Ageing of Farmers	2.4	YES – identified as one challenge
5	Depopulation of Rural Areas	2.4	
6	Farm (rural) Women’s Social integration/identity	2.4	YES
7	Job Dis-Satisfaction & sense of achievement	2.6	-
8	Family Farming – low Wages	2.5	-
9	Social Exclusion of Migrant Field Workers	2.7	-
10	Social Exclusion of Counter-urbanites	3.0	-
11	Hidden Homelessness	3.4	-
12	Poverty	3.0	-

2 topics-themes (social challenges) have been identified as more relevant to the FARMWELL project and worth introducing to the two group of farmers identified for participating at the PG meetings: (1) Ageing of farmers (overall depopulation of rural areas) and (2) Farm (rural) Women’s Social integration/ identity.

4.2. Challenge No1: Ageing of farmers (overall depopulation of rural areas)

A. Social challenge identified: Ageing of farmers (overall depopulation of rural areas)

- **Type of social challenge**
Ageing of farmers (in relation to the overall depopulation of rural areas)
- **Describe the social challenge**
Both farming and rural populations are decreasing in the country and currently one third of farmers are over 65 years old. Ageing farmers and depopulation of rural areas are one of the most challenging problems that the country has to face despite the fact that the past years there were incentives from CAP measures for generational renewal. The feeling of depopulation or abandonment is strong in local people's narratives about their overall well-being in rural areas. This adds numerous challenges to farming as an economic activity (amongst other: introduction of innovations) but also tests the resilience of rural areas (rural development) as a whole.
- **Where does this social challenge manifest itself?**
This specific problem manifests itself in almost all rural regions; especially those with less infrastructure and geographical restrictions but also those close to urban centers that keep attracting young people. One of the manifestations of this challenge is the fact that most of the farmers are facing huge problems concerning their physical health. Their reduced capabilities due to the age-related difficulties but also due to the way they are "treating-using" their body creates huge health risks and precarious working conditions. Consequently they don't have a decent life while at the same time their mental health is affected negatively when they are at pain constantly. Finally their social health is affected as they are perceived as "useless in society".

The presence of physical, cognitive, and motor disabilities increases physical and mental burdens on aged workers, is significantly increasing the risk for accidents, inducing high stress and contributing to worsening of healthcare conditions.

B. Impact of social challenge

Farming in Greece tends to be characterised by a conservative mindset based on generations of traditions and reluctance to change working routines, despite the evidence that working performances are decreasing due to aging. This has a direct impact on the job-safety, as proven by the high numbers of agricultural accidents involving older farmers (farming is among top three most exposed to physical risks) and it is acknowledged that the accidental deaths occur most frequently to aged farm workers⁵. The presence of physical, cognitive, and motor disabilities increases physical and mental burdens on aged workers, is significantly increasing the risk for accidents, inducing high stress and contributing to worsening of healthcare conditions. Minimising these factor is critical as older workers are statistically the age group with highest risk of accident.

The risk of accidents is further augmented by additional stress that might be induced by time pressure, broken –old equipment etc.

These figures raise serious concerns about the future competitiveness of farming and related activities and demand for tailored and adaptive policies for older farmers and workers, as the potential impact in terms of economical, welfare and social terms is huge⁶. In addition, rural society is seen lately as a recipient of care (a number of services related to health is needed for rural areas) and not as a productive group.

⁵ https://www.jstage.jst.go.jp/article/jjrm1952/35/4/35_4_818/_article

⁶ Sustainable work and the ageing workforce. 5th European Working Conditions Survey. 2012.





“Many years ago in the village you could hear children playing ... now it’s all aged people in the kafeneia. Families have 1 child maybe 2 ... but during my times we had 3 or even 4 and more.”

a) individual farmers and farming families:

Mental wellbeing:

Since these people are dealing with physical health problems, it’s clear that their mental wellbeing is affected directly when they are constantly in pain or frustrated when they cannot perform their tasks.

Physical wellbeing:

Chronic health conditions and accidents due to minimized capabilities. Solutions might be using less chemicals and pesticides, better quality of food and better working conditions for both farmers and farm workers.

Social wellbeing:

Farmers are moving away from their social habits and feel useless.

b) farming community and wider rural community

Larger societal impacts:

Since most of the members of the farming communities are facing such problems, they don’t have the courage to work for the larger community. The quality and the quantity of their produce is affected, with directly impacts on their income. An increase in the number of health care services is needed in rural areas (public investments).

C. What are the main causes of the problems identified?

- 1 One of the major causes identified is **demographic change** – Greek demographic problem (downturn of births).

“many years ago in the village you could hear children playing ... now it’s all aged people in the kafeneia. Families have 1 child maybe 2 ... but during my times we had 3 or even 4 and more.”

“My socializing was with old women – in their 80ies – but i had so much fun they taught me everything about traditional handcrafts.”

- 2 Economic crisis:** the financial issues that farmers are facing result in a drop in the profession as they can't provide enough income for their families. The fact that in Greece the rural family has small-fragmented holdings does not provide a fertile ground for investments and productive cultivation. Hence not many people see farming as a sustainable living – especially young farmers that are reluctant to choose the farmers' job.

"prices for agricultural products are getting lower and lower and costs higher and higher. You can't work in such market conditions."

"young people prefer to work part time in coffee shops, serving other people instead of working in the farm. Being a farmer is not an attractive occupation."

"The last 10 years we are facing huge economic problems and in addition the pandemic came and put many economic risks to all businesses in the village."

- 3 Lack of education-training:** the difficulties that especially young farmers are facing during cultivation related to their agronomic skills are an obstacle for entering the agricultural sector. Young people (sometimes from urban settings) that are willing to engage in agriculture are hereby having a hard time accessing training programs that are tailored made, modern and effective. Unfortunately there isn't – at national level – an annual basic training program for young farmers at the national level, to educate and help them enter safely and with all necessary-modern skills and knowledge the agrifood sector. Most of the new farmers therefore, are facing a lot of difficulties and they find it hard to continue farming. Any training of young farmers in Greece is characterized obsolete and not prioritizing peer to peer knowledge, farm schools, farmers/discussion groups etc. This entails the risk of dropping out of farming after the first difficulties and lack of knowledge that will lead to their welfare.

Any training of young farmers in Greece is characterized obsolete and not prioritizing peer to peer knowledge, farm schools, farmers/discussion groups etc. This entails the risk of dropping out of farming after the first difficulties and lack of knowledge that will lead to their welfare.

- 4 In general, the **lifestyle of a farmer** isn't so attractive for young people, while the new trends impose a completely different life routine for young people.

“Do you know many young girls that will marry a sheep breeder? I don't!”

- 5 **Heavy-difficult to handle machinery:** Small-scale farmers sometimes feel hopeless when it comes to the use of technology and complex corporate machinery that is not tailored to their needs (size) and is not affordable. The usual tools that the market provides for farmers are not always convivial to assemble and not easy to use; they are heavy, difficult to manage and to adapt to micro farms. During harvesting or weeding, farmers suffer from back and neck pain and other myoskeletal problems, which is a drawback for the adoption of organic agriculture.

- 6 Limited access to **health care in rural areas and other services.**

“There are empty houses in the village (from people that left) but no available houses for young families, how can you explain that?”

“Young families will not stay in the village (no schools for their children, no services for leisure activities etc).”



D. How do farmers/farming deal with the negative impact on wellbeing?

- Farmers never complain about health issues-they keep working despite their pains.
- Sometimes they try to follow safety rules but with no success – as to lack of education. From time to time they follow seminars on work accidents but with no real impact on changing unsafe behaviours.
 - Sometimes they try to adopt their tools and machinery to a more age friendly form
 - Exchange tasks with peers when someone is not capable to go to the field
 - Sometimes a number of social activities are organized in the village for socializing but these are sporadic

How far are these solutions effective/ineffective?

- These solutions are ineffective and temporal and do not actually change the situation faced by farmers (both at an individual and collective level)
- Even the CAP measures for generational-renewal are not effective enough as demographic change depends also on other factors, including socio-cultural and wider economic incentives/disincentives for people to farm and live in rural areas.

How does the farmer attempt to deal with the negative impacts on his/her mental, physical and social problem?

- Farmers try to find help within the family and turn to family members to replace them with doing tasks in the farm

Are there any relevant social innovations present to deal with these social challenges?

- In other rural areas there is a living lab with people working on friendly tools.

In general, the lifestyle of a farmer isn't so attractive for young people, while the new trends impose a completely different life routine for young people.



“Do you know many young girls that will marry a sheep breeder?
I don't!”



“Have you ever watched advertisements for machines used in agriculture? They use sexy women – with as few clothes as possible to advertise the tools! This is so stereotypical and frustrating!”

- In some Municipalities there is a group of (public) social workers that helps aged people and people that can't take care of themselves by providing them nursing care, family care and daily food delivery (but this remains rather technical support to cope with everyday practical issues and not actually dealing on the root of the problem).
- A number of public events are organized to discuss these demographic issues and some NGOs are trying to deal with the problem (for example HOPEGenesis; unfortunately, this NGO mainly targets urban settings).

How far has the farmer access to these social innovations?

- The participation is voluntary and place based; hence there is no real access to all farmers

What is the impact of these social innovations on the individual farmer/farming family?

- Empowers farmers – especially aged ones – to change working conditions and use age friendly tools.

4.3. Challenge No2: Farm (rural) Women's Social integration/identity

A. Social challenge identified:

Farm (rural) Women's Social integration/identity

- **Type of social challenge**
Gender-based challenges
- **Describe the social challenge**
Despite the fact that there is an increase of female farm holders the past 20 years in the country, it is still the male member of the family having decision making power over the farm. Women seem present in statistics but their actual social integration and appreciation as farmers can be questioned. The family's strategy sometimes is to take advantage

of EU-funded agricultural subsidies (succession of the farm and additional bonus when a female member takes over the farm) so rural families in many cases promote their female members as head of the farms but in reality the male members have all the cooperatives and other bodies. Women are still being treated as an invisible force, housekeepers and mothers and not as real farmers; their work is invisible, seasonal and usually part time and/or unpaid. Their overload of work (both farm and family) poses a great threat to their wellbeing. In addition to the acceptance of their role as real farmers, that influences their social wellbeing.

- **Where does this social challenge manifest itself?**

This social challenge manifests itself in many rural territories all over Greece/ especially those with cultural characteristics of male dominance and patriarchal structures.

- **Who is affected by this social challenge?**

Women, the farming family, the rural community

Apart from the extension services, it is articulated by women farmers themselves that the overall public services offered in rural areas (child care for example) do not enable a greater participation of women in the labour market.

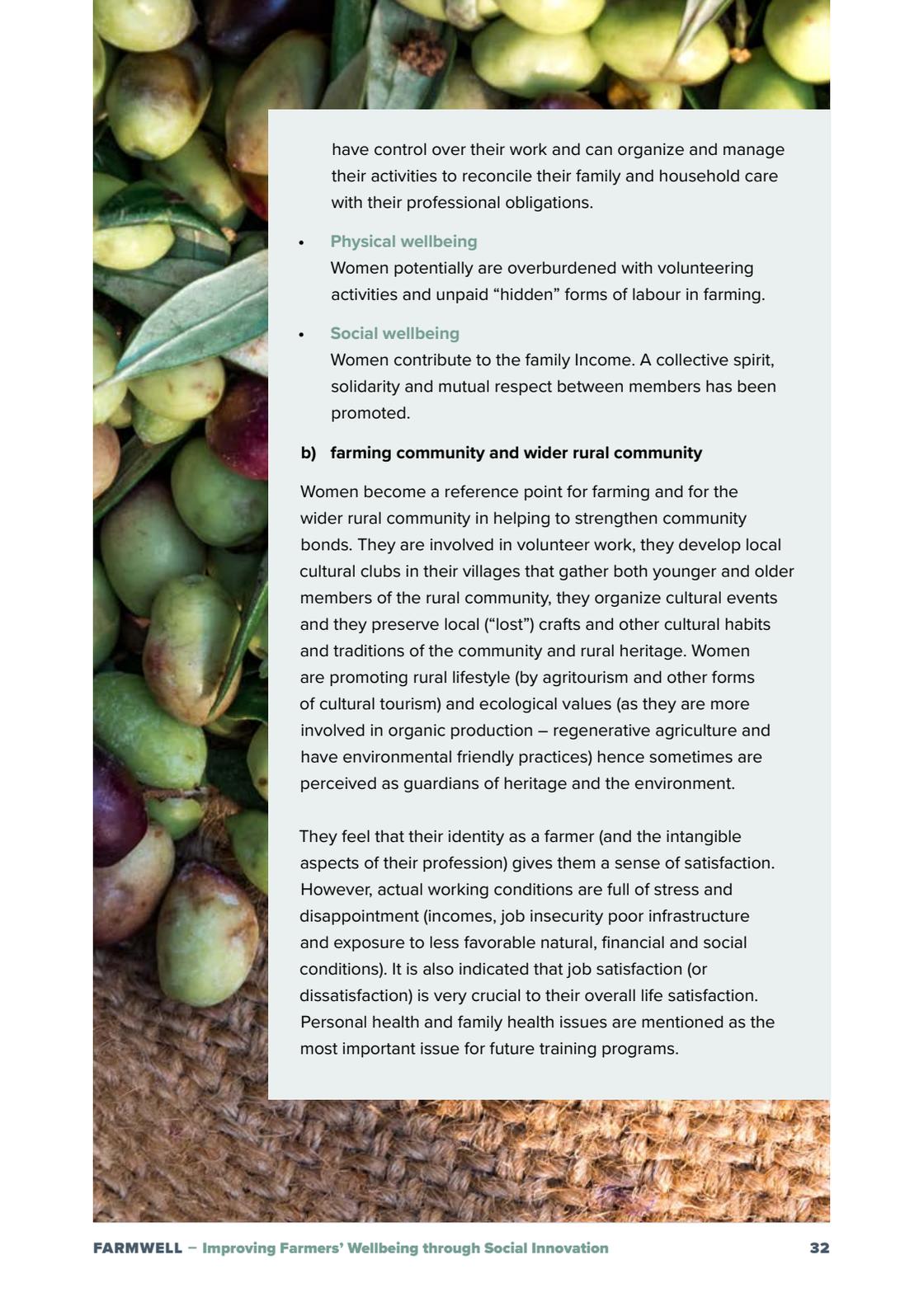
B. Impact of a social challenge

Women's lower educational level is a barrier for their capacity for innovation. But even when they are willing to attend seminars to improve their agronomical and other soft skills, Greek extension services ignore gender aspects in terms of balance between family-care responsibilities, as well as insisting on a male dominant profile of the educators/trainers. Apart from the extension services, it is articulated by women farmers themselves that the overall public services offered in rural areas (child care for example) do not enable a greater participation of women in the labour market.

a) individual farmers and farming families:

- **Mental wellbeing**

Women's active participation (not only as labour but as equal partners and head of the farm) in the rural community may promote psychological empowerment for women; women



have control over their work and can organize and manage their activities to reconcile their family and household care with their professional obligations.

- **Physical wellbeing**

Women potentially are overburdened with volunteering activities and unpaid “hidden” forms of labour in farming.

- **Social wellbeing**

Women contribute to the family income. A collective spirit, solidarity and mutual respect between members has been promoted.

b) farming community and wider rural community

Women become a reference point for farming and for the wider rural community in helping to strengthen community bonds. They are involved in volunteer work, they develop local cultural clubs in their villages that gather both younger and older members of the rural community, they organize cultural events and they preserve local (“lost”) crafts and other cultural habits and traditions of the community and rural heritage. Women are promoting rural lifestyle (by agritourism and other forms of cultural tourism) and ecological values (as they are more involved in organic production – regenerative agriculture and have environmental friendly practices) hence sometimes are perceived as guardians of heritage and the environment.

They feel that their identity as a farmer (and the intangible aspects of their profession) gives them a sense of satisfaction. However, actual working conditions are full of stress and disappointment (incomes, job insecurity poor infrastructure and exposure to less favorable natural, financial and social conditions). It is also indicated that job satisfaction (or dissatisfaction) is very crucial to their overall life satisfaction. Personal health and family health issues are mentioned as the most important issue for future training programs.

C. What are the main causes of the problems identified?

- 1 One of the causes identified is the stereotypical identity of farming, which is male dominant. Farmers are still considered to be the male members of the rural family. Despite the fact that female members of the rural family spend many hours and effort in farming tasks, it's the male that gets all the credit.

“When other farmers saw me with the lawn mower it was the topic of the day at the kafenio; or when I put the sprayer on my back they were saying that she has no money to get a worker.”

“Have you ever watched advertisements for machines used in agriculture? They use sexy women – with as few clothes as possible to advertise the tools! this is so stereotypical and frustrating!”

- 2 Another cause is the fact that all channels of information are male dominated. For example meetings with agronomists and other educational events take place in local coffee shops (kafeneia) that are almost exclusively male. This is mainly the place where important decisions are made and knowledge is exchanged.

- 3 The fact that agriculture entails physical power for the majority of the tasks is also a cause identified for the social construction of the masculine identity of the farmer. This observation is even stronger for older farm women.

“the male farm workers I employed in my farm did not let me use the chainsaw, they thought I would get injured or I will kill someone. They always told me to put it down.”

“I see some women in my village, older than me, that put down in physical power many men, they are robust and have always worked in the field. It is difficult for young women that move from the office to the farm. The body needs to pass a transition period, afterwards it can do anything.”

Women are promoting rural lifestyle (by agritourism and other forms of cultural tourism) and ecological values (as they are more involved in organic production – regenerative agriculture and have environmental friendly practices) hence sometimes are perceived as guardians of heritage and the environment.

- 4 Working in the farm is a 24hours job; you have to prioritize your farm, animals etc and not yourself or your family. Hence when women have children it is difficult to keep both tasks in a balance especially given the fact that in rural areas there are no social structures to help women with children.
- 5 Globalization and political decisions made in the framework of National and EU policies that does not support small scale farmers; given the fact that female farms are smaller and less globalized they find themselves struggling with the competitive environment and sometimes are considered as less effective and competent than their male counterparts.

“the system is against you ... and always falls behind the actual real needs of the time.”

- 6 No incentives for women to create an added value to their farm production and gain more money (which is indicative of creating an identify of a successful farmer).
- 7 Women enter agriculture to get a pension, to get subsidies, because they have a piece of land that their father gave them. As it is not their decision to become farmers, this generates a negative perception (starting from a self-perception) of the female farmers.
- 8 Mainstream agricultural cooperative are an unfriendly environment for women as they are entirely male dominated. Due to the widespread perception of women as homeworkers and mothers, women are not seen as equal and active members of organizations dominated by men. Rural women are hardly represented in the public sphere and in agricultural organizations, particularly in the decision-making process and in leadership. Male farmers are the most involved in local politics, local government, rural cooperatives, while they have little involvement in household chores to the detriment of women. Stereotypes towards rural women persists in many areas and prevent them from being entrepreneurs and participate equal in the society.

Rural women are hardly represented in the public sphere and in agricultural organizations, particularly in the decision-making process and in leadership. Male farmers are the most involved in local politics, local government, rural cooperatives.

D. How do farmers/farming deal with the negative impact on wellbeing?

In some areas some efforts are being made:

- Memorandum of common approaches for promoting Female Creativity in the Agricultural Sector (pilot project).
- Creation of clusters – networks (synergies, collaboration, exchange of information).
- Find innovative (clever) ways to do the tasks that entail physical power. Change the tools. Create women friendly tools.

“after some years using the lawn mower I went to a crafts men and asked him for one that did not need so much effort when getting started, and all my machines I have changed them with those that work on battery ... no need for physical power; they are more expensive but more friendly for my body type.”

“you can't imagine ... all these years I am trying to find this working pans on my size and I can't. A solution might be to make a social cooperative that makes clothes and tools for women farmers! Why not!”

- Create female mentors for women farmers.

“find people that will get you out of the mentality of the past ... the way business was done by our grandparents.”

- Enhance participation on collective schemes (with women from other professions in the local area)
- Pluriactivity: have additional activities apart from agriculture such as cottage industry with local food products, wine tourism, agritourism, creative industry). These activities can turn “disadvantages” (those that come from the social stereotypes) into advantages.





“Meeting other people that come to my farm gives me the incentive to go on. I meet very interesting people. Once a group came to our farm that later on we became close friends. They told all about natural birth and alternative ways of bringing up your children, which I did not imagine. This made me a whole other person, changed my whole family’s wellbeing, not only mine.”

“we don’t need to prove that we can do the farm tasks like men do. We don’t have to “fall” into this trap in discussions. Maybe the solution is to do something else, something that we like, if that is accommodate people, talk to them about the values of organic olive oil production, guide them into the forest for a day trip, this is how I am going to prove that I am a capable farmer, I don’t have to be on top of a tractor.”

“meeting other people that come to my farm gives me the incentive to go on. I meet very interesting people. Once a group came to our farm that later on we became close friends. They told all about natural birth and alternative ways of bringing up your children, which I did not imagine. This made me a whole other person, changed my whole family’s wellbeing, not only mine.”

- Rural women have been able to create niche economic activities and shape cooperatives, associations, institutions and networks (Self-help groups).

How far are these solutions effective/ineffective?

- The effectiveness of these actions depends on women’s own participation in them. Their participation depends both on personal factors such as the characteristics of the family and the farm, the level of use of collective actions from the farm, the attitude of women towards the agricultural organisations and their views on them, and on Institutional factors such as the structural characteristics of organizations (the number of women and men on them) and the attitudes of the persons running the organization towards women members.

How does the farmer attempt to deal with the negative impacts on his/her mental, physical and social problem?

- The creation of women-only agricultural organizations (or groups) would allow women to participate more actively, take up leadership opportunities, better control benefits derived from membership and express their opinion more freely.
- With peer to peer learning.

Are there any relevant social innovations present to deal with these social challenges?

- Women's cooperatives and other small farmer's groups (like women's discussion groups) can strengthen women's identity as farmers and advocate on women's integration to rural-farming communities. Activities such as peer to peer learning and discussion groups might help women farmers (also by using innovation brokers) understand their soft skills, educate them according to tailored needs and overall give them a platform to discuss and express themselves, in a safe and trusting environment. A number of women's co-operatives in agritourism and local products in Greece have been developed during the past years in Greece. These women's agricultural co-operatives are a social innovation as they have played a significant role for rural societal cohesion, mainly in geographically and economically isolated rural areas albeit their weaknesses and difficulties to survive in a competitive environment.

How far has the farmer access to these social innovations?

- The participation in these collective actions is voluntary.

What is the impact of these social innovations on the individual farmer/farming family?

- Cooperatives can empower women as they offer them economic opportunities and women can also develop their skills and earn the respect of the whole community. Collective action enables women to have more independence and self-esteem and develop their technical and leadership capacities. These organisations give women a voice and a forum in which to articulate their interests. Women who are members of such organization are more involved in decision making within the farming family and gain great confidence and they have access to important agricultural information and to credit. The use of local resources contributes to the local development of the rural area.
- Empowering women through agricultural organizations that enable them to challenge issues that deal with access to knowledge, innovation, training.

Women's cooperatives and other small farmer's groups (like women's discussion groups) can strengthen women's identity as farmers and advocate on women's integration to rural-farming communities.

Cooperatives can empower women as they offer them economic opportunities and women can also develop their skills and earn the respect of the whole community.

5.

Conclusion

This paper, part of the Horizon 2020 Thematic Network 'FARMWELL' has systematically mapped the main social challenges that farmers and rural families are being confronted with in Greece. Based on this mapping exercise, a set of two social challenges has been prioritized (out of an extensive set of challenges) and analyzed and another set of 11 social innovations has been mapped aiming at improving the wellbeing of individual farmers, farming households and rural communities. Using a mixed method approach; both desk research and field research and validation of all these data in a participatory way, with an extensive use of farmer's input and other stakeholders, the Greek team members (both AUTH & STEVIA Coop) identified and elaborated the social challenges among a long list of challenges that rural families and farmers face.

Despite the modernization of Greek farms strong links (cultural) still exist between the family and the farm. Rural areas and rural families are still facing major social challenges, not only economic hardships, but also lack of access to health care, poor educational services and social support. **Depopulation and ageing is one of the most important challenges that rural areas face** leading to a number of consequences affecting social, mental and physical wellbeing. Also the **“hidden” and undervalued dynamic of women in agriculture** and in rural areas has been one of the main debates both at an academic level and public discourse. Women's acceptance of their role as real farmers has created a number of social issues leading to a great challenge for their social integration.

The root causes for both challenges are an constellation of personal, institutional, social factors that impact on both farmers (male and female) but also on their families and the

overall rural society. Lack of cooperation and education are major constraints hindering the ability of farmers to adapt to economic, environmental and social challenges.

Some social innovations do exist that might help deal with the negative impact on wellbeing but they remain mostly theoretical and pilot cases. It is indicative also that in Greece EIP_AGRI Operational Groups are not yet established. Healthy ageing living labs are introduced by research and other institutes but refer mainly to urban settings. Therefore the Social Innovation landscape is rather blurry and there is a need to make these innovations more accessible, in order to improve the social, mental and physical wellbeing of farmers and their farming families.

This country-specific mapping report demonstrates country-variations and tries to provide an understanding of the complexity of the European social landscape. On the other hand, it also highlights some common challenges and macro-regional patterns that might benefit from common approaches and exchanges of best practices and social innovations adopted in other participant countries of our Thematic Network 'FARMWELL'.

Healthy ageing living labs are introduced by research and other institutes but refer mainly to urban settings. Therefore the Social Innovation landscape is rather blurry and there is a need to make these innovations more accessible.

6.

Bibliography

- Alexopoulou, G., Koutsouris, A. and Partalidou, M. (2020). Rural areas and NEETs. 16o Hellenic Conference in Agricultural Economics :Sustainable Agriculture, Food sovereignty & Climate change: Challenges and opportunities for rural economy”, 9-10th October Athens (acceptance for publication).
- Anastasiou, E. and Mari-Noel Dyken (2021). Covid-19 and society: geographical distribution of social isolation in Greece (2020). Demo News, Issue 41:1-5, <http://www.e-demography.gr> .
- Anthopoulou, T. (2010). Rural women in local agrofood production: Between entrepreneurial initiatives and family strategies. A case study in Greece. *Journal of Rural Studies*, 26, 394–406. <https://doi.org/10.1016/j.jrurstud.2010.03.004>
- Anthopoulou, T., Partalidou, M., & Kourachanis, N. (2019). Hidden homelessness and poverty trajectories in rural areas: stories of crisis counterurbanization in Greece. *The Greek Review of Social Research*, 152, 229-256. doi:<http://dx.doi.org/10.12681/grsr.21723>
- Charatsari, Ch., Papadaki-Klavdianou, A., Michailidis, A. & Partalidou, M. (2013). Great expectations? Antecedents of women farmers' willingness to participate in agricultural education programmes. *Outlook on AGRICULTURE*, 42:3,193-199.
- Corselli-Nordblad, L. and Strandell, H. (2020). Ageing Europe LOOKING AT THE LIVES OF OLDER PEOPLE IN THE EU2020 edition-Luxembourg: Publications of the European Union, 2020 Accessed 20/5/2021 from <https://ec.europa.eu/eurostat/en/web/products-statistical-books/-/ks-02-20-655>
- Eurostat. (2018). Quality of life in Europe – facts and views – employment. *Statistics Explained*, 1–19. <https://doi.org/10.2785/59737>
- European Commission (2019) Analytical factsheet for Greece: Nine objectives for a future Common Agricultural Policy, September 2019, Accessed on April 28 2021 at https://ec.europa.eu/info/sites/default/files/food-farming-fisheries/by_country/documents/analytical_factsheet_el.pdf

- Figueiredo, E., Partalidou, M. and Koutsou, S. (2020). 'No Choice' or 'A Choice'?-An Exploratory Analysis of 'Back to the Countryside' Motivations and Adaptation Strategies in Times of Crisis in Greece and Portugal. In Döner, Fatma Nil, Figueiredo, Elisabete, Rivera, María Jesús (Eds.) *Social Change, Challenges and Opportunities in Southern and Mediterranean Europe* (pp.119-139). SPRINGER. DOI 10.1007/978-3-030-50581-3_7.
- Gkiza, I. and Nastis, S.A. (2017). Health and Women's Role in Agricultural Production Efficiency, Applied Economic Perspectives and Policy 39(3): 428-440.
- Gidarakou, I., Dimopoulou, E., Lagogianni, R., & Sotiropoulou, S. (2008). Young women and agriculture – The cases of active young women farmers in West Macedonia, Greece. In H. Coccoisis & Y. Psycharis (Eds.), *Regional analysis and policy. The greek experience* (pp. 355–374). Physica-Verlag HD. https://doi.org/https://doi.org/10.1007/978-3-7908-2086-7_18
- Greek Ministry of Agriculture (2021). CAP Strategic plan for the period 2021-2027 [https://ead.gr/cap-2021-2027-consultation-nrn-activities/Papadopoulos, A.G., Fratsea, L.-M., Spyrellis S., Baltas, P. \(2021\) Exploring the contribution of migrant labour in Greek agriculture, Italian Review of Agri-cultural Economics 76\(1\): 33-48. DOI: 10.36253/rea-12574](https://ead.gr/cap-2021-2027-consultation-nrn-activities/Papadopoulos, A.G., Fratsea, L.-M., Spyrellis S., Baltas, P. (2021) Exploring the contribution of migrant labour in Greek agriculture, Italian Review of Agri-cultural Economics 76(1): 33-48. DOI: 10.36253/rea-12574)
- Hellenic Statistical Authority (2016). Census of Agricultural and Livestock Holdings. <https://www.statistics.gr/en/statistics/agr>
- ESYE (2018). Research of Agricultural Structure and Livestock Holdings, Year 2016. Hellenic Statistical Authority
- lakovidou, O., Koutsou, S., Partalidou, M. & Emmanouilidou, M. (2012). Women entrepreneurs in rural Greece: do they come from the same "neck of the woods"? Locals, Daughters-in-law and Urban-newcomers. *NEW MEDIT: Mediterranean journal of economics, agriculture and environment*, 11:2, 58-64.
- Ioannidis, A. and Oxouzi, E. (2015). Demographic characteristics, employment, poverty and living conditions of the farming population of Greece. GSEE Labor Institute, Studies 38, Athens, Greece (in Greek)
- JRC (2018). Loneliness – an unequally shared burden in Europe, Science for Policy Briefs, https://ec.europa.eu/jrc/sites/jrcsh/files/fairness_pb2018_loneliness_jrc_it1.pdf. Accessed on April 20th, 2021.
- Koutsou S. & Partalidou M. (2012). Inequalities faced by young farmers in Greece: making the marginal rural areas even more marginalized in Paniagua A., Bryant R. and Kizos T. (eds.), *The Political Ecology of Depopulation: Inequality, Landscape and People*, CEDDAR, Zaragosa, Spain, ISBN 978-84-92582-77-8 (pp.233-249).
- Koutsou S., Partalidou M. & Ragkos, A. (2014). Young farmers' social capital in Greece: Trust levels and collective actions. *Journal of Rural Studies*, 34, 204-211.
- Koutsou, S. & Partalidou, M. (2012). Pursuing Knowledge and Innovation through Collective Actions. The Case of Young Farmers in Greece. *The Journal of Agricultural Education and Extension*, 18:5, 445-460.
- Kotzamanis, V. (2020). Demographical ageing, challenge or threat? *Demo News*, Issue 38:1-6, <http://www.demography-lab.prd.uth.gr/Publications-gr.asp#DemoNews>.
- Koutsou, S., Partalidou, M. & Petrou, M. (2011). Present or absent farm heads? A contemporary reading of family farming in Greece. *Sociologia Ruralis*, 51:4, 404-419.
- Louise Corselli-Nordblad and Helene Strandell eds. (2020) *Ageing Europe LOOKING AT THE LIVES OF OLDER PEOPLE IN THE EU2020 edition-Luxembourg: Publications of the European Union, 2020* <https://ec.europa.eu/eurostat/en/web/products-statistical-books/-/ks-02-20-655>

- Liltsi, P., Michailidis, A. & Partalidou, M. (2014). Mapping Perceived Happiness alongside the Rural-Urban Continuum. *Procedia Economics and Finance*, 9, 288-301.
- Mavrakanas, T.A., Konsoula, G., Patsonis, I., Bodossakis, P.M. Childhood obesity and elevated blood pressure in a rural population of northern Greece. *Rural Remote Health* 9(2):1150...
- National Rural Network (2021) " The Rural Voice of Greece: Imagining the future www.ead.gr > wp-content > uploads > 2021/03 > Rural-voice-of-Greece <https://ead.gr/symmetoxi-ead-evdomada-agrotikou-oramatou/>
- Nastis, S.A., Michailidis, A. and Mattas, K. (2013). Hazardous agrochemicals, smoking and farmers' differences in wage-risk tradeoffs. *Operational Research* 13(1): 139-152.
- OECD (1993). *What Future for our Countryside?*, Paris: OECD Publishing.
- Papadopoulou, D.G., Papadaki-Klavdianou, A., Michailidis, A. & Partalidou, M. (2019). The level of job satisfaction of young farmers subsidized by European rural measures: evidence from Northern Greece. *Asian Journal of Agriculture and Rural Development*, 9(2), 147-163
- Papadopoulos A.G. and Fratsea L-M. (2021) Migrant and Refugee Impact on Well-Being in Rural Areas: Reframing Rural Development Challenges in Greece. *Front. Sociol.* 6:592750. doi: 10.3389/fsoc.2021.592750
- Papadopoulos, A.G. and Fratsea, L.-M. (2021). Migrant and Refugee Impact on Well-Being in Rural Areas: Reframing Rural Development Challenges in Greece. *Front. Sociol.* 6:592750. doi: 10.3389/fsoc.2021.592750
- Polopolus, L. C. (1989). Greek agriculture in a period of adjustment. *Agriculture and Human Values*, 6(1), 82-90. doi:10.1007/BF02219424
- Sergaki, P., Partalidou, M., & Iakovidou, O. (2015) Women's Agricultural Co-operatives in Greece: a comprehensive review and SWOT analysis. *Journal of Developmental Entrepreneurship*, 20, 155002-1-155002-14
- Tsiaousi, A., & Partalidou, M. (2020). Female farmers in Greece: Looking beyond the statistics and into cultural–social characteristics. *Outlook on Agriculture*. <https://doi.org/10.1177/0030727020928256>

Annex I:

Social Innovations Table

This annex provides an overview of relevant social innovations and national organizations in farming. This annex follows the same format as the Practice Abstracts that need to be collected in WP3. Main logic is that no double work needs to be done in this regard for national research teams. With this annex we aim for 11 social innovations that are elaborated through the annex below.

Title of social innovation	Coordinator (lead partner) <i>Keywords: type of organisation</i>	Country (of the coordinator)	Objective (Which social challenge does the innovation attempt to tackle?)	Activities	Key target group(s)
SILVERFARM	AUTH (Research Academic Institute)	Greece	Ageing of farmers	Brings a solution for adaptive smart working environments targeted to older adults, supporting them to remain actively involved, helping them to sustain and renew their work and personal life related skills and support independent active and healthy lifestyles while taking into account reduced capabilities due to age-related health risks and conditions. The “working gear” set will be composed of: mart glasses, smart arm band, protective footwear, helmet.	Aged farmers
OPEN FARMS & open farm e-shop boxes and experiences	MedCulture (private company) & informal Network –community of farmer’s open farms	Greece	Family Farming – low Wages	Opens the farm to urbanite (agritourism) and provide both fresh food and lived experiences. At the same time small farmers have the chance to socialize and contact different cultures, people from abroad, share stories, new ideas and sell their products at gate level.	Small family farms (pluriactive households, organic farmers)
WOMEN’S AGRO-TOURISTIC COOPERATIVES	Agricultural women’s only Cooperative	Greece	Rural-farm women’s integration to rural society	Farm women and women in the rural gain incomes and take part in the local economy-become visible. These cooperatives produce local food products based on local recipes and offer also agritourism services (today there are scattered all over Greece)	Rural women

Title of social innovation	Coordinator (lead partner) <i>Keywords:</i> <i>type of organisation</i>	Country (of the coordinator)	Objective (Which social challenge does the innovation attempt to tackle?)	Activities	Key target group(s)
TZOU-MAKERS	P2P open lab	Greece	Impoverishment	Cooperatively design and manufacture tools for small-scale agricultural production. Their vision is to create such villages where farmers may seize technology into their own hands. These sites may be supported by municipalities and / or by multi-stakeholder cooperatives. As part of a greater social innovation project the creation of this living lab in an isolated mountainous area in Greece creates the conditions for farmers themselves to take into their hands the way they are practicing agriculture and the tools they use, outside the mainstream market.	Small farmers in mountainous – remote rural areas
BIOS-COOP (social economy)	Consumers' cooperative	Greece	Impoverishment	It's a social cooperative – grocery store that sells products from small farmers (minimize food miles) and other social and solidarity cooperatives involved in food produces. Organizes social events and networking.	Small farmers in the peri-urban
COMMUNITY SUPPORTED AGRICULTURE	"Argo" Social Enterprise	Greece	Impoverishment, social exclusion	Creates job opportunities, promoting social inclusion, organizing educational seminars, training etc. Creates equal opportunities with the rest of workforce, eliminating their deficiencies and empowering their talents.	Peri-urban farmers (unemployed, former drug users or suffering from mental illness)
ENERGY COOPERATIVES (for example in Karditsa)	Local Action Group of Karditsa – Ecosystem of Social Innovation	Greece	Energy poverty	Brings together farmers and other local communities to have access to energy.	Rural families at risk of energy poverty
MELITAKES	Social Cooperative	Greece	Impoverishment, social exclusion	Production of healthy food and tradition, local gastronomy, sustainable living, social cohesion "wellbeing, well acting in Asterousia Crete"	Small farmers (agroecological farms)

Title of social innovation	Coordinator (lead partner) <i>Keywords:</i> <i>type of organisation</i>	Country (of the coordinator)	Objective (Which social challenge does the innovation attempt to tackle?)	Activities	Key target group(s)
MELITZAZZ FESTIVAL	Municipality of Southern Kynouria LAG Regional Development Company of Parnonas	Greece	De-population of rural areas	Multi-national gathering of cultures, in Tsakonia, Leonidio. Invited artists and chefs convey the atmosphere of their places, contributing to the celebration with music, dance, culture, and tastes. Scattered events take place in the streets, squares and in the chateaus of the picturesque traditional village of Leonidio, numerous open stages are set up throughout the area, the streets are transformed into open air bars and street food goes to a new dimension. The festival is dedicated to the famous PDO Tsakonian eggplant of Leonidio.	All rural people
ART PATHWAYS TO PRESPE	Dep. of Arts, University of Western Macedonia	Greece	De-population of rural areas	Stimulates art in a remote rural area in the borders of Greece. It's a museum without borders characterized by nomadism and interconnectedness. The method of distributing the digital production of the Course through the ECB ePublishing Service is also innovative, both because the minutes are available on open access terms, allowing everyone to become co-creators, as well as why the Department introduces new, digital workflows for the publication of the research carried out.	Young people
HELP AT HOME	Greek Government	Greece	Aging, Impoverishment, social exclusion	Social Work for aged people and people that can't take care of them. Activities: counseling support for people to cope with the difficulties of their lives with dignity, Restoration and improvement of family relationships, Cooperation with Social Services, Nursing care, Family care, Daily food delivery	Elderly and disabled

Annex II:

Tables I, II, III

Table I: Timeline with experts & farmer interviews (who-when-where) / topic discussed

Date	Description	interviewee	Topic discussed
25.2.21	Zoom Meeting with national expert / National Contact Point for Greek Rural Network	expert #1	Rural vision for Greece (challenges and solutions)
28.2.21	Zoom meeting with researcher	expert#2	Profile of agriculture in the country and socio-demographics
6.4.21	Zoom Meeting with a female farmer (goat/sheep breeder in a mountainous area)	farmer#1	Living in a mountainous area (challenges and happiness)
4.3.21	Zoom Meeting with LAG representative	expert #3	Rural vision for Greece (challenges and solutions)
22.3.21	Physical Meeting with farmers from Stevia Hellas Coop at Cooperative premises	farmer#2,3,4,5,6	Everyday life in the farm
26.3.21	Zoom participation to Omfalos meeting	farmer#7	Women in agriculture (organic farming and health)
8.4.21	Discussion with a decision maker (phone call) from Region Authority of Central Greece	expert#4	Measures taken for farmer's wellbeing
11.4.21	Zoom Meeting with farmers	farmer#8,9,10	Ageing, quality of life in rural areas and succession
12.4.21	Zoom Meeting with agronomist-consultant	expert#5	Access to knowledge, innovation, rural-urban connection, farmer's identity
28.4.21	Zoom Meeting with a decision maker from Academy of Athens	expert#6	Customs and cultural practices of the rural family

Date	Description	interviewee	Topic discussed
5.5.21	Physical Meeting (Northern Greece) with 2 sheep farmers (male)	farmer ^{#11,12}	Succession – living in the rural
10.5.21	Zoom meeting with professor from University of Thessaly	expert ^{#7,8}	Physical wellbeing of farmers
14.5.21	Zoom Meeting with farmer (female)	farmer ^{#13}	Women in olive oil – gender perspective validation of social challenges identified in literature
1.5.21 – 16.5.21	Student's task for course	farmer ^{#14-24}	
19.5.21	Online focus group for prioritization of topics	6 Academics (4 male + 2 female) & 1 policy makers (male) & 1 Agronomist-Extensionist (male)	Validation of social challenges identified in literature
27.5.21	Online focus group for prioritization of topics	2 farmers (male) + 1 local stakeholder + 1 agronomist (male)	Validation of social challenges identified in literature
9.6.21	Online focus group for prioritization of topics	9 female (farmers) + 2 researchers + 2 agricultural extensionists	Validation of social challenges identified in literature

Table II: Statistics on female farmers in Greece and in the EU

	Greece Total	Greece Female	EU-28 Female
Number of farms	684.950	188.020	2.975.190
Utilised Agriculture Area (ha)	4.553.830	607.470	23.227.040
Average size of farm (ha)	6,65	3,23	7,81
Farms with SO under 2,000	209.700	69.950	1.416.540
proportion in number of farms	30,61%	33,35%	49,41%
Farms with holder aged > 65 years	229.230	62.960	1.245.430
proportion in number of farms	33,46%	33,49%	41,86%
Farms with average size under 2 ha	346.830	108.460	1.501.940
proportion in number of farms	50,63%	57,68%	50,48%
Arable crops as proportion of UAA	51,87%	56,56%	42,48%
Permanent crops as proportion of UAA	26,95%	12,33%	9,47%
Proportion of farms with plant production	83,61%	86,97%	61,08%
Proportion of farms with animal production	9,79%	7,13%	23,92%
Proportion of farms with mixed production	6,60%	5,90%	15%
Farm family labour force (persons)	1.213.420	469.760	8.699.340
proportion in total labour force	97,98%	99,38%	94,43%
Labour force > 65 years	90,3 thousands	27,2 thousands	1.573,1 thousands
proportion in total labour force	4,69%	3,49%	10,56%
Farms with holder had only practical experience	666.260	177.600	2.339.270
proportion in number of farms	93,91%	95,39%	78,38%
Farms with holder had full agricultural training	4190	840	157480
proportion in number of farms	0,59%	0,45%	5,28%
Farms with other gainful activities	13.770	2.900	126.660
proportion in number of farms	1,94%	1,21%	3,96%
Farmers with other gainful activities and age >65 years	1.950	370	27.040
Permanent work force (persons)	25.014	2.915	
Permanent work force (farms)	16.144	1.883	
Seasonal work force (persons)	895.610	170.026	
Seasonal work force (farms)	275.852	68.758	
Number of Improvement Plans	6.694	1.613	
Number of Young farmers	13.668	4.299	
Number of approvals in Organic Farming	7.598	1.848	

Source: Tsiaousi & Partalidou (2020)

**Table III: Mega Challenges (at national level) that are related to wellbeing
SOCIAL-PHYSICAL-MENTAL HEALTH of the farmers and the rural family**

[1 totally agree – 5 totally disagree]

a/a	Mega Challenges (at national level)	1 st expert	2 nd expert	3 rd expert	4 th expert	5 th expert	6 th expert	7 th expert	8 th expert	Average
1	Poor Infrastructure	3	2	4	3	2	3	3	2	2.8
2	Lack of Access to Health, Educational, Cultural & Public Services	4	2	5	3	2	2	3	1	2.8
3	Small & Fragmented Land Parcels, Lack of Economies of Scale	2	5	1	1	3	2	2	3	2.4
4	Absence of Training & Advisory Services For Farmers	1	2	3	1	1	2	1	2	1.6
5	Ageing of Farmers	1	3	5	2	1	2	2	3	2.4
6	Depopulation of Rural Areas	1	4	4	2	1	3	2	2	2.4
7	Farm (rural) Women's Social integration/ identity	2	2	2	3	3	2	2	3	2.4
8	Job Dis-Satisfaction & Happiness In The Rural	4	1	4	2	3	2	3	2	2.6
9	Family Farming – Wages	2	2	3	3	2	2	2	4	2.5
10	Social Exclusion of Migrant Field Workers	3	1	2	2	5	3	3	3	2.7
11	Social Exclusion of Counter-urbanites	4	2	2	3	5	2	4	2	3.0
12	Hidden Homelessness	5	3	2	4	3	2	4	4	3.4
13	Poverty	2	4	4	3	3	2	2	4	3.0

