НАЦИОНАЛНА ФЕДЕРАЦИЈА НА ФАРМЕРИ

IT'S ALL ABOUT Climate-Smart Agriculture

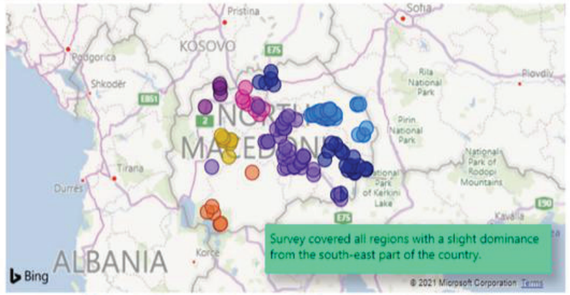
Climate-Smart Agriculture (CSA) Farm Sustainability Assessment

To ensure food security and sustainable management of natural resources in the context of increased frequency and intensity of climate shocks, it is essential to transition to sustainable and resilient food systems, which are more productive, resource efficient, preserve and enhance natural ecosystems and biodiversity. Uptake of sustainable and productive farm management practices is especially important at farm level, thus understanding of the needs of farmers for information and tools needed for farm decision making is of crucial importance. Under the FAO project "Sustainable Productivity in Agriculture in the context of CSA and Agroecology", the National Federation of Farmers (NFF) conducted a survey in October 2021 aimed at assessing the current trends, major concerns and information and tools being used by farmers in North Macedonia for adoption of CSA practices. The data collected will serve as a basis for improving the farm sustainability in the country the context of CSA.

FIELD RESEARCH

The survey covered 300 farmers between the ages of 22 and 77 years old, who mainly cultivate fruit, grape and horticulture products. In terms of gender, 25% of the respondents are women and 75% are men.

COVERED REGION

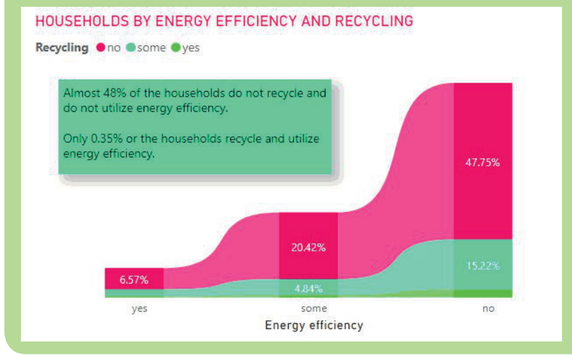


Regions Istocen Jugoistocen Pelagoniski Polog Skopski Vardarski Zapaden

AIR, ENERGY, RECYCLING

In terms of air quality and environment, burning of harvest residues has not been practiced by more than 90 % of the respondents. Recycling is practiced almost equally between all age groups, i.e., around 22% of all age groups between 22 and 77 years old. Efficient use of energy shows similar results, i.e., roughly by around 28% of the respondents. Electricity is by far the main energy source for the respondents, whilst solar energy is used the least, which is one of the main areas for farm sustainability improvement. Still, there is a need for serious effort to address the issue of environment in agriculture and to take multidimensional approach in agriculture and rural development.

HOUSEHOLDS BY ENERGY EFFICIENCY AND RECYCLING

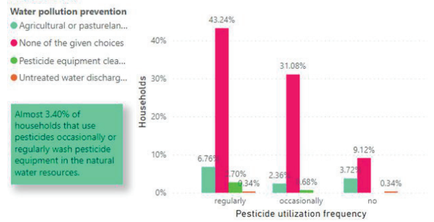


USE OF WATER and PESTICIDES

The survey shows relatively high percentage of respondents using pesticides and wash pesticide equipment in the clean natural water springs, rivers

(2.70% of the interviewed households use pesticides regularly, 0.68% of the households use pesticides occasionally).

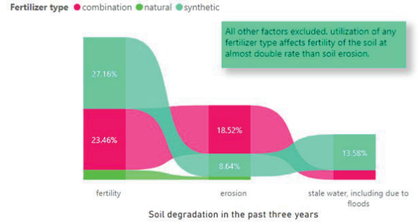
HOUSEHOLDS BY PESTICIDE UTILIZATION FREQUENCY AND WATER POLLUTION PREVENTION



SOIL DEGRADATION

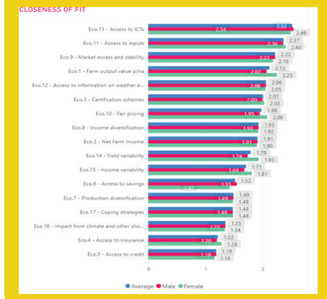
More than 85% of the rural households utilize some sort of fertilizer. All other factors being excluded, utilization of fertilizers possibly affects soil degradation in the form of fertility decrease as much as double than it affects soil erosion (54% vs. 27% respectively)

HOUSEHOLDS BY FERTILIZER TYPE AND SOIL DEGRADATION



Economic dimension

CLOSENESS OF FIT

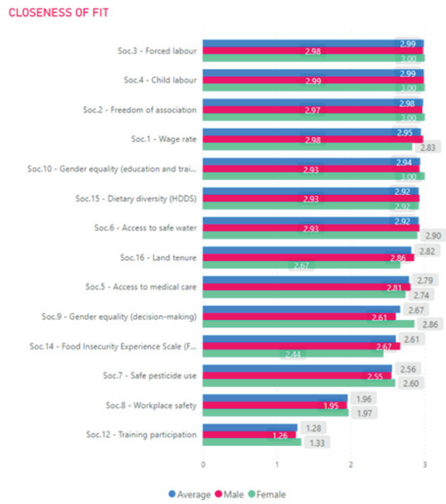


The economic analysis shows that the interviewed farmers have very limited access to finance. On one side, there is a lack of awareness for the financing instruments and their realistic support into agriculture development; while on the other hand, the financial products available do not comply with the farmers' needs. Men farmers have still slightly better access to finance in comparison to women farmers. Farmers' access to ICT has improved, with many farmers having to acquire new digital skills for using online platforms for sale, production technology transfer and experience exchange to overcome the challenges caused by the Covid-19 pandemic. Most of the respondents have used social media for information purposes and know-how sharing. The access to agricultural insurance has improved, but still for limited type of producers, mostly fruit and grapes producers. The yields, as well as incomes, remain largely variable with high amplitudes. The diversification of production among farming households is still low, making it difficult to overcome intermitent cash-flow crisis overall.

Social Dimension

The social dimension of the research shows that despite the unfavorable economic and environmental conditions, rural areas in North Macedonia maintain high level of social responsibility. There are no issues identified with forced labor, child labor or limitation of freedom and other human rights in agriculture. However, the access to social services in rural areas is quite limited, there is still high percentage of the rural population falling under the poverty line and food security is still an issue. Gender equality in rural areas has been slightly improved (please specify in which segments), over the last five years, but there is still a lot to be done in this area.

CLOSENESS OF FIT



Environment Dimension

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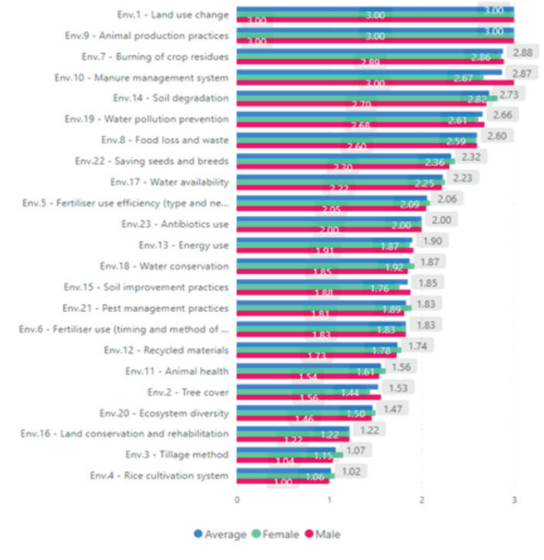

The change of land use has very high index, where the preventive measures on arable land degradation are limited. The environmental balance and nature conservation are at high risk, there is still high water pollution, the manure management is improper and the food loss and waste is a significant issue. The use of energy efficiency practices at farm level is very limited and the soil degradation is quite high, requesting serious efforts for addressing environmental challenges in the agriculture sector in a multidimensional approach.

CONCLUSION

In terms of economic analysis, the survey illustrated low economic performance of the rural households with limited access to finance, lack of awareness of the economic instruments. Business planning at farm level is very rare and financial instruments currently available are not suitable for the needs of farmers. In order to survive, more than 45% of all agricultural households depend on other income sources. This does not include farming, out of which 26% belong to non-agricultural employment as a secondary source of income.

The social dimension of the survey shows close bonds among the people in rural areas, there is almost no limitation of the freedoms and human rights. Social services in rural areas are very limited. Gender equality and youth challenges remain main areas for priority actions in rural development.

The environmental dimension shows that the preventive measures on arable land degradation are limited, the land use changes have a very high index, the environmental balance and nature conservation are at high risk. The energy efficiency practices are limited, while the soil degradation is quite high. It is clear that this requires taking serious efforts to address the environmental dimension in agriculture and to consider a multidimensional approach in agriculture and rural development.