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MEASURING WOMEN'S EMPOWERMENT IN AGRICULTURE WITH SURVEY-BASED AND EXPERIMENTAL ECONOMICS METHOD

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BACKGROUND

Gender inequality is an important issue for any society and is especially pronounced in the agricultural sector and rural areas. Agriculture is perceived as a men-dominated sector, yet as an engine of growth and development, it should provide greater recognition of the importance of women (Alkaire, et al. 2013). The agricultural sector accounts for about 10% of the Macedonian national gross domestic product and is the main driver of the rural economy. It employs 17% of the country's workforce, out of which one-third are women (SSO, 2017a). The majority of agricultural workers are men and they dominate all age groups and management activities. Women's participation in the management of agricultural holdings is very low, and the outlook is not positive, as it dropped from 11% in 2013 to 10% in 2016 (SSO, 2014 and 2017b). The low employment and participation of women in farm management indicate the limited inclusion of women in the decision-making process. The patriarchal structure, local customs, cultural and traditional social norms add to the poor socio-economic of women in rural areas (Risteska et al. 2012; Petrovska Mitrevska and Tuna 2017; World Bank and FAO 2014). The national policy framework continuously adjusts in line with the country's preparation for European Union (EU) integration. As the EU fosters agricultural and rural development policy, programs and practices supporting gender equality issues, the Macedonian government should also further address and prioritize women's empowerment in the national agricultural and rural development policy.

PROJECT GOAL

The project "Measuring Women's Empowerment in Agriculture with Survey Based and Experimental Economics Methods" is a result of joint cooperation and implementation between the Faculty of Agricultural Sciences and Food - Skopje and the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women).

The **overall goal** of the project is to contribute to the empowerment of women in rural areas and their increased participation and leadership in the agricultural sector. The main **project outputs are**: (1) identification of the key determinants of disempowerment to be targeted in enhancement support programs, and (2) revision of the agriculture and rural development policy to better address gender inequalities.

To achieve the project goal, behavioral and experimental economics framework was used through the **Abbreviated - Women's Empowerment Index in Agriculture** to measure empowerment in five domains: Production, Resources, Income, Leadership and Time allocation (Alkaire, et al. 2013), as well as **Gender sensitive analysis of the policy and the budgetary transfers**. In addition, as a novel approach to the methodology, **Women's Decision-making Power** (Forsythe, et al. 1994; Engel 2011) was measured. The project evidence-based approach of proved to be valuable to effectively improve the design and implementation of government policies and programs (Higgins et al. 2017). Besides desk research and secondary data, a field survey was conducted in cooperation with the National Extension Agency in June-July 2018 on 464 agricultural households in the eight statistical regions in the country. The National Federation of Farmers supported the survey pre-testing phase.

Summary of the indicators and domain specific/related results (n=464)

Five Domains	Indicators	Selected results
Production	Input in productive decisions	Constant lower participation of the women in the decision-making process in the productive activities and the control over use of income
Resources	Ownership of assets	Property/house 4.07% of the women are owners of property/house 95.9% of the men are owners of property/house - In 21.96%, their parents are owners of property/house Land ownership 12.01% of the women own the land 87.99% of the men own the land 90.35% of men make a decision on activities related to the land - Only 9.65% of women have a leading role in decision making on activities related to the land 50% of women landowners are not active in the decision-making process on activities related to the land
	Access to and decisions on credit	Saving houses 58.6% of women perceiving themselves as not eligible for credit offered by saving houses (women less eligible than men) Banks 47.6% of women perceiving themselves as not eligible for credit offered by banks (women less eligible than men) Macedonian Bank for Development Promotion (MBDP) 67.9% of women perceiving themselves as not eligible to use credit from MBDP IPARD/Rural development programme 61.85% of women perceiving themselves as not eligible for this programmes
Income	Control over use of income	When a woman is responsible for <i>farm accountancy</i>, the woman is significantly more empowered and exhibits lower gender parity gap
Leadership	Group membership	Only 5% the women are active members in groups or associations
Time allocation	Workload	- Women work in average 11.06 hours per day (41,7% of the total workload belongs to unpaid work) - Man work in average 9.68 hours per day - mainly paid work

GENDER PERSPECTIVE IN AGRICULTURE AND RURAL DEVELOPMENT POLICY AND PROGRAMS

The importance of gender equality has been recognized by national institutions (Law on equal opportunities of man and women, Official Gazette of RM, 6/2012) that made significant efforts to advance gender equality through the creation of an enabling legislative framework, adoption of policies and establishment of institutional mechanisms at central and local level (UN Women, 2018).

The agricultural sector is regulated with dozen of laws and by-laws, with the Law of Agriculture and Rural Development (LARD, 2010) as the main **legal framework** determining the agricultural and rural development policy in the country. In addition, there are few **strategic and operative documents** that define the developmental goals and regulate the financial support in agriculture and rural development, such as: the National Strategy for Agricultural and Rural Development (NARDS) 2014–2020, the EU Instrument for Pre-accession

for Rural Development (IPARD) programs 2007–2013 and 2014–2020, and the National Programs for Agricultural and Rural Development (NPARD) 2013–2017 and 2018–2022. Gender equality and non-discrimination, as principles, are included in these documents. The enclosure of concrete gender-sensitive aspects analyzed in these documents is summarized through the lens of five domains in Table 1.

The relevant policy mainly focuses on support of production investments (including equipment and machinery) and women inclusion in the policymaking process in the line Ministry of Agriculture, Forestry and Water Economy (MAFWE), as well as in Local Action Groups (LAGs). The diversification of economic activities, as particularly suitable for gender-specific capacities and aspirations, is not fully used. The workload dimension is not much addressed and included as such in policy documents. However, the IPARD diversification measure potentially offers freeing women in rural areas of some domestic obligations, such as childcare, nursing care, and catering. There is a need to better inform farmers about the opportunity for including additional activity on the farm (LARD, 2010, Art. 82–85). These are just few examples of taking advantage of the current program and measures framework to support gender equality.

Table 1: Summary of gender-sensitive aspects in the relevant documents structured by the five domains

Domains Key documents	Production & Resources	Income	Leadership	Time allocation (Workload)
Law on Agriculture and Rural Development (LARD, 2010)	Gender is among criteria for user selection (Art. 91)	Additional aid for women as holders of agricultural holdings (Art. 102, until 2012)	- Civil society organizations (CSOs) promoting women in rural areas recognized as MAFWE social partner (Art. 24) - Women participation in LAGs (Art. 89)	
National Agriculture and Rural Development Strategy 2014-2020 (NARDS)	Prioritizes projects proposed by women in rural areas by granting additional points	Proposed measure to provide “continuous support for active woman members of the agricultural holdings”	- Supports women inclusion in LAGs decision making and in MAFWE working groups - Supports establishment of producer groups of women in rural areas	
National Programs for Agriculture and Rural Development 2018-2020 (NPARD)		Operationalizes the above measure defined in NARDS, planned for 2020 (M. 115)		
EU Instrument for Pre-accession for Rural Development 2007-2013 (IPARD I)	Projects by women are granted additional points in the evaluation process in all measures	Rural tourism sector stressed as suitable for providing sustainable income for women in rural areas, as diversification activity	Women, through CSO, are involved in preparation, implementation, monitoring, and evaluation of the program	Some eligible services under M302 potentially offer women free time
EU Instrument for Pre-accession (IPA) Rural Development Program 2014-2020 (IPARD II)	Projects by women are granted additional points in the evaluation process in all measures		Women, through CSO, are involved in preparation, implementation, monitoring, and evaluation of the program	

Gender disaggregated data on the implementation of the annual programs for financial support of agricultural and rural development and IPARD I (AFSARD, 2018) indicate that, in average, women farm managers receive about 30% lower income from subsidies compared to men; apply less frequently to structural measures, but with slightly

higher amounts per project; similarly as men, most women apply for the on-farms investment measures set in IPARD (Table 2). The data do not allow for deeper gender analysis within the programs and measures, hence the need for more detailed gender disaggregated data and statistics for future analyses.

Table 2: Summary of gender-sensitive analysis of budgets transfers

Program	Measures (group)	Conclusion
Program for financial support of agriculture (2013-2017)	Direct payment	15% of applications are not gender disaggregated. - In average, women farm holders receive lower income from subsidies (35,682 MKD vs. 53,753 MKD of men)
Program for financial support of rural development (2015-2017)*	Structural and rural development	Average value per application from women (461,342 MKD) is higher than those from men (424,970 MKD)
IPARD 2013-2017	M101	74 out of 83 applications by women are for M101 - investment on-farm (compared to 343 out of 410 for men).
	M103	Investments in processing and marketing – specifically only one finished investment by women (compared to 5 from men)
	M302	Women have a higher success rate in diversification projects: from 5 submitted, 3 are contracted, and 2 are finished (compared to 48 submitted by men, 2 contacted, and 2 finished)

*Data not available for 2013-2014

KEY SURVEY FINDINGS

Abbreviated-Women's empowerment index in Agriculture (A-WEAI). A-WEAI is composed of two sub-indexes: the **Five domains index (5DE)** for women with the disempowerment index (1-5DE), and **Gender Parity Index (GPI)**, that measures gender parity in empowerment within the household, with the empowerment gap

(1-GPI) defined as the percentage difference in empowerment scores between women and men. The weights of the 5DE and GPI sub-indexes are 90% and 10%, respectively. The total AWEAI score is the weighted sum of the country or regional level 5DE and GPI. Improvements in either 5DE or GPI will increase A-WEAI (Alkaire, et al. 2013).

Table 3 A-WEAI results (five domains of empowerment index, the disempowerment index, the Gender Parity Index, the empowerment gap)

Indexes	Women	Men
5DE index	Empowered in 64.3% of the indicators	Empowered in 83.5% of the indicators
Disempowerment index (1-5DE)	Disempowered in 35.7% of the indicators	Disempowered in 16.5% of the indicators
Share of disempowered individuals	58 out of 100 women are disempowered	33 out of 100 men are disempowered
Average Gender Parity Index (GPI)	Women exhibit empowerment scores that are 75.4% of those of men	
Empowerment gap (1-GPI)	The percentage difference in empowerment scores between women and men is 24.6%	
Share of individuals not achieving parity	66.6% of women do not achieve parity with their partner	33% of men do not achieve parity with their partner
Gender Parity Index of sub-sample disempowered individuals	Women exhibit empowerment scores that are 62.7% of those of man	
Empowerment gap (among those without parity)	The percentage difference in empowerment scores between women and men is 37.3%	
Abbreviated Women's Empowerment Index in Agriculture (A-WEAI)	The overall A-WEAI (0.654) exhibits significant potential for improvement either through improving 5DE or by reducing the empowerment gap between women and men	

In addition, the level of disempowerment index (1-5DE) was measured on **regional level** (Figure 1). The regions are arranged in the figure by how large the gap is between women and men. Vardar, Southeast and Polog regions exhibit the largest gap between genders. Their level of disempowerment is also above the national average for women but is below the national average for men.

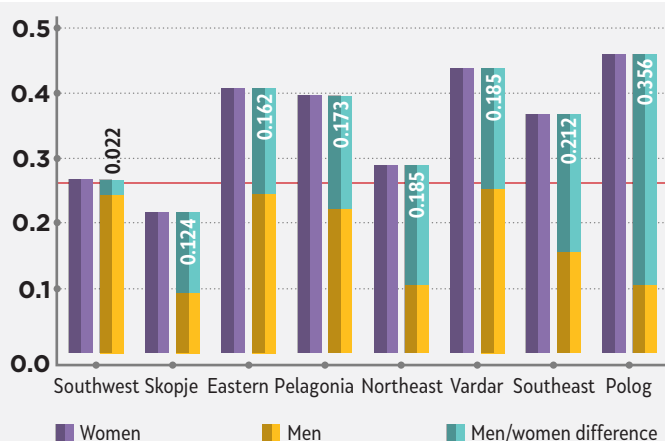


Figure 1: Regional representation of the disempowerment index (red line - the national average of the disempowerment index)

Domain specific/related results. Women are disempowered in almost all domains, yet **ownership of assets, input in decision making, and control over use of income** contribute most to women's disempowerment. These three indicators take around 34.5% of the value of the disempowerment index in agriculture for women but only 10.1% to the value of the disempowerment index in agriculture for men.

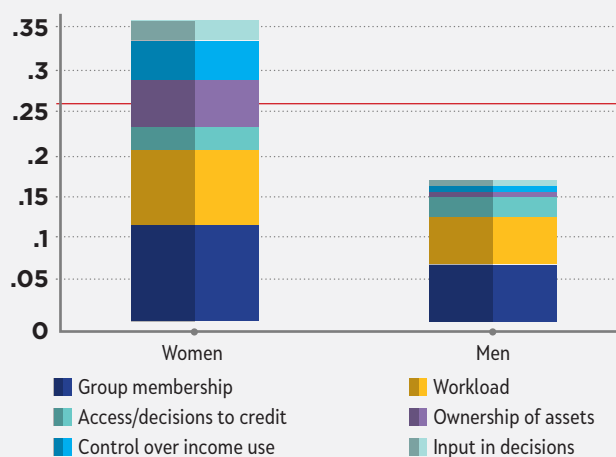


Figure 2: Contribution of the domains/indicators to the women's disempowerment (red line - the national average of the disempowerment index)

KEY CONCLUSIONS

- Women are **disempowered in all domains** and the policy supports them mostly in the production and group membership domains.
- There are certain **policy measures targeting women** in terms of improving their position in rural areas. Yet, it is evident some **(mis) understanding of the concept**.
- The **lack of gender disaggregated data** limits the gender needs analysis and evidence based policy design.

KEY RECOMMENDATIONS

- To include **gender aspects in all future agriculture and rural development policies, programs and practices and to emphasize gender equality in policy goals and objectives**.
 - To establish a **gender unit in the MAFWE** to support the Ministry on a regular basis. To build the capacity of the gender unit employees (training and mentoring) on:
 - planning and implementation of gender-needs assessment, use of gender statistics, promotion of gender-disaggregated data, defining gender indicators, and building gender-responsive policy and budgeting.
 - To set up a system of **mandatory and regular cooperation between institutions**, especially in policy design and monitoring.
 - Such cooperation is needed, for example, between the gender unit in MAFWE and the Department for Equal Opportunities within Ministry of Labor and Social Policy (MLSP), as an umbrella body on the gender issue, to adequately and fully address

gender needs; and between the MAFWE and AFSARD for program monitoring and evaluation.

- To foster **gender-responsive policy and programs**; hence, to use obligatorily **gender-disaggregated data and statistics** in program preparation and evaluation.
 - To clearly define requirements of gender-statistics disaggregated data, indicators, and targets, to support evidence-based policy and programs design and monitoring.
 - In addition, to initiate a regular **sub-sector group** on gender issues within MAFWE, with representatives from the relevant stakeholders, that will ensure continuous attention to and inclusion of gender aspects in policy and programs.
- To design and deliver **gender-sensitive rural advisory services** to raise awareness of women's roles and (potential) contributions to the household and community, to overcome traditional beliefs and values, to support positive attitudes and behavior, to build women in rural areas and men capacities, to address the regional and ethnical differences, and thus, to contribute to a sustainable change of gender relations.
- To **support the farmer organizations in their advocacy** to obtain certain rights through coordinated efforts of different responsible institutions. For example, to regulate the maternity leave or health insurance issue for women in rural areas (Ministry of Health, MLSP, MAFWE, etc.), or to address the regional differences (Local Government, Regional Development Office, etc.).

Selected reference:

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More information

This policy brief is a summary of comprehensive empirical research so to succinctly evaluate policy options regarding gender inequality in agriculture.

The complete edition, published as monograph, will be available at: http://www.fzhn.ukim.edu.mk/mk/20180914905/unw_fzhn.html

Information about the project is available at: http://www.fzhn.ukim.edu.mk/mk/20180914905/unw_fzhn.html

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