

DOES FARM CERTIFICATION FOR SUSTAINABLE AGRICULTURE CONTRIBUTE TO FOOD EXPORT? A CASE STUDY IN MIDDLE- INCOME COUNTRIES

Vesna Paraušić¹

Institute for Agricultural Economics, Belgrade, Serbia

Nataša Kljajić²

Institute for Agricultural Economics, Belgrade, Serbia

Ivana Domazet³

Institute of Economic Sciences, Belgrade, Serbia

INTRODUCTION

Agriculture contributes to economic growth while endangering the environment and causing global climate changes. This sector requires transformation in terms of sustainability and greening practices and payment (EC, 2019; EC, 2020; FAO, 2018; World Bank, 2021). Private standards in agriculture are created to support food traceability, safety and security. Simultaneously, they contribute to responsible agriculture and sustainability aims, with the focus on environmental sustainability.

LITERATURE REVIEW / THEORETICAL BACKGROUND

Implementation of private standards in agriculture practices is a catalyst for transforming agricultural systems into environmentally sustainable ones, while supporting export performances of national economies (Andersson, 2019; Bain, 2010; Fiankor et al., 2020; Henson et al., 2011; Kleemann, 2016; Laosutsan, Shivakoti & Soni, 2019; Masood & Brümmer, 2014; Npueng, Oosterveer & Mol, 2022). This support is more expressed in less developed countries than in high-income countries (Andersson, 2019).

¹ E-mail address: vesna_pa@iep.bg.ac.rs; vparausic@gmail.com

² E-mail address: natasa_k@iep.bg.ac.rs

³ E-mail address: ivana.domazet@ien.bg.ac.rs

METHODOLOGY

The GLOBALG.A.P. standard is the leading private standard in plant production, oriented towards the holistic approach to sustainability and environmental responsibility on farms (GLOBALG.A.P., 2022). Using the example of 13 middle-income countries of Europe and Central Asia, we examined the impact of the GLOBALG.A.P. certification on national export results in the fruit and vegetable sector during the period 2010-2021. Descriptive statistics and panel regression were used for this analysis.

RESULTS

The panel regression results confirmed a statistically significant impact of the change of the GLOBALG.A.P. certified farmers' number on the: (a) growth of export values in the fruit and vegetable sector ($p=0.000$; $R^2=0.586$); (2) growth of export values of fruit and vegetable to high-value markets ($p=0.000$; $R^2=0.806$), as well as (c) on the growth of the percentage share of fruit and vegetable export to high-value markets compared to the total export of these two sectors ($p=0.011$; $R^2=0.586$).

DISCUSSION / POLICY IMPLICATIONS

The obtained results confirm and complement similar results reached by other authors (Andersson, 2019; Bain, 2010; Fiankor et al., 2020; Henson et al., 2011; Laosutsan, Shivakoti & Soni, 2019; Npueng, Oosterveer & Mol, 2022). However, they do not confirm the findings of Kleemann (2016), Masood & Brümmer (2014) and Schuster & Maertens (2015), who question the contribution of the GLOBALG.A.P. certification to export results in less developed economies, particularly from farmers' perspective.

CONCLUSION

Stimulating the reforms focused on greening economies and improving resource and energy efficiency is crucial for all countries, particularly the less developed ones. Private standards in agriculture, based on sustainability principles, can significantly assist this turn. Their implementation requires fulfilling numerous pre-conditions, the most significant being building trust between all participants of the food supply chain and strengthening farmers' financial resources.

KEYWORDS

Agriculture, Farm certification, Environmental sustainability, Export performance, Middle-income countries

REFERENCES

1. Andersson, A. (2019). The trade effect of private standards. *European Review of Agricultural Economics*, 46(2), 267-290. doi:10.1093/erae/jby027
2. Bain, C. (2010). Governing the global value chain: GLOBALGAP and the Chilean fresh fruit industry. *International Journal of Sociology of Agriculture & Food*, 17(1).
3. EC (2020). *Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. EU Biodiversity Strategy for 2030. Bringing nature back into our lives*. Brussels, 20.5.2020. COM(2020) 380.
4. EC (2019). *Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. The European Green Deal*. Brussels, 11.12.2019. COM(2019) 640.
5. FAO (2018). Transforming food and agriculture to achieve the SDGs. 20 interconnected actions to guide decision-makers. Food and agriculture organization of the United Nations. Rome, 2018
6. Fiankor, D. D. D., Flachsbarth, I., Masood, A., & Brümmer, B. (2020). Does GlobalGAP certification promote agrifood exports? *European Review of Agricultural Economics*, 47(1), 247-272. doi:10.1093/erae/jbz023
7. GLOBALG.A.P. (2022). Integrated Farm Assurance. Control points and compliance criteria. GLOBALG.A.P. c/o FoodPLUS GmbH, Cologne, Germany. Available online: https://www.globalgap.org/.content/.galleries/documents/220125_GG_IFA_CPCC_A_Q_V5_4-1-GFS_en.pdf
8. Henson, S., Masakure, O., & Cranfield, J. (2011). Do Fresh Produce Exporters in Sub-Saharan Africa Benefit from GLOBALG.A.P Certification? *World Development*, 39(3), 375-386. <http://dx.doi.org/10.1016/j.worlddev.2010.06.012>.
9. Kleemann, L. (2016). The relevance of business practices in linking smallholders and large agro-businesses in Sub-Sahara Africa. *International Food and Agribusiness Management Review*, 19(1030-2017-2126), 65-78. doi: 10.22434/IFAMR2015.0204
10. Laosutsan, P., Shivakoti, G. P., & Soni, P. (2019). Factors Influencing the Adoption of Good Agricultural Practices and Export Decision of Thailand's Vegetable Farmers. *International Journal of the Commons*, 13(2), 867-880, doi: <https://doi.org/10.5334/ijc.895>
11. Masood, A., & Brümmer, B. (2014). *Impact of GlobalGAP certification on EU banana imports: a gravity modeling approach* (No. 49). GlobalFood Discussion Papers. Available online: <https://www.econstor.eu/bitstream/10419/103985/1/798896396.pdf>



12. Npueng, S., Oosterveer, P., & Mol, A. P. (2022). Global and local sustainable certification systems: Factors influencing RSPO and Thai-GAP adoption by oil palm smallholder farmers in Thailand. *Environment, Development and Sustainability*, 1-26. <https://doi.org/10.1007/s10668-022-02306-6>
13. Schuster, M. & Maertens, M. (2015). The impact of private food standards on developing countries' export performance: An analysis of asparagus firms in Peru. *World Development*, 66, 208–221, <http://dx.doi.org/10.1016/j.worlddev.2014.08.019>
14. World Bank (2021). Greening the Recovery. Western Balkans. Regular Economic Report No. 20. Fall 2021. Washington: International Bank for Reconstruction and Development/The World Bank. Available online: <https://www.worldbank.org/en/region/eca/publication/western-balkans-regular-economic-report>