

Sustainable Agriculture as a path to prosperity for the Western Balkans

[In the debate](#) / 16/04/2013

Darko Znaor outlines the potential for organic agriculture in the Western Balkans, following a report on the topic from the Heinrich Boell Foundation.

Author



[Darko Znaor](#) is an environmental scientist, freelance consultant and project manager working with a range of international organisations.

“Agriculture for Sustainable Development in the Western Balkans” is a title of a recent study supported by the Heinrich Böll Foundation. The study has been undertaken to try to assess the environmental and economic consequences of a shift to “sustainable” agriculture in the four Western Balkan countries: Bosnia and Herzegovina (BiH), Croatia, Montenegro and Serbia. It aims to help policy makers and other stakeholders in the Western Balkan countries understand the potential positive impacts which could occur by investing in and designing sustainable policies for the agriculture sector.

Unknown consequences of a wide-spread shift towards sustainable agriculture

Agriculture has been a backbone of the Western Balkans for centuries and has always played an important role in their societies. The study is focused on the examination of what a major shift to sustainable agriculture would mean for positive and negative externalities – as well as the agricultural sector as a whole in the Western Balkans. As farming is linked to many other economic activities, the widespread adoption of sustainable farming methods could have broader impacts. The consequences might include effects on employment and the overall economic performance of some sectors (e.g. the fertiliser and pesticide industry and their distribution chains). In developed countries, the widespread adoption of sustainable farming is most likely to result in lower yields, threatening agricultural profitability and most likely contributing less to GDP. To date, hardly any research has been carried out to assess the cross-sector effects of sustainable farming on the entire economic system. Policy makers lack studies providing a detailed insight into the corresponding economic, environmental and social impacts of both the

present level of sustainable farming methods and scenarios involving its expansion on a larger scale.^[4] An increasing body of evidence suggests that the environmental performance of sustainable types of farming is superior to other methods.^[5] From the environmental point of view, the further spread of sustainable farming seems to be desirable.^[6] However there is some concern about the impact of this spread on society as a whole and the exact costs and benefits of this scenario and its associated trade-offs remain unknown.^[7]

The case of organic farming

In this study, organic farming was chosen as a “case” for assessing feasibility of sustainable farming in the Western Balkans. By opting for organic farming, it was not intent to prejudge that this is the most, or the only sustainable farming method. Organic farming was chosen as a preferred sustainable farming method because of a range of merits and practical reasons. It is regulated by law and it is part of the official agricultural policy in all Western Balkan countries. Besides, it is a fast growing sector and its socio-economic and environmental performance is well documented in the scientific literature.

In spite of various obstacles, the experiences and evidence from the Western Balkans suggest that a positive organic farming trend in the region already exists. The current agricultural area under organic management in the Western Balkan countries appears to be marginal: from 0.05% in BiH to 1.8% in Croatia. But what is more interesting and relevant is the trend of development. The area under certified organic farming in the region has increased ten-fold in the period 2005–2010, with an average annual rate of 57%. This is largely due to a booming organic farming sector in Croatia. But organic farming is growing in other three countries, too. Organic farming is becoming more and more successful and wide-spread in the region. Organic farming subsidies or other support mechanisms are in place in all Western Balkan countries and consumers’ demand for organic food is on rise.

Approach and methodology applied

The study addresses three important aspects which are frequently talked about in the debates on sustainable agriculture: (1) employment; (2) food productivity and; (3) economic performance. Consequently, feasibility of the baseline (2009) and the three development scenarios is assessed against (1) labour force they employ; (2) volume of food they produce and; (3) real value added (RVA) they generate. The RVA is assessed by correcting gross-value added (GVA) for associated environmental costs (damage to climate, air, water and soil) and public expenditures (various apparent and hidden subsidies). The calculation of RVA was possible because a monetary value (in Euro) was assigned to all identified environmental costs using various environmental accounting methods. The three development scenarios comprised:

1. A business of usual scenario (BAU) assuming rather static development and no substantial changes in agricultural practices and policy by 2050 as compared to the baseline.
2. An “ECO” scenario assuming well-developed social and human capital and a complete conversion to organic farming by 2050.
3. An “ECO+” scenario based on the synergy that can be created with the energy sector which is presented in the sustainable scenario of the sister study on the energy sector in the Western Balkans. This scenario relies on the same assumptions as the ECO scenario, but includes more land under irrigation and greenhouse production and slightly higher yields because of the use of large quantities of wood ashes as a fertiliser, by-product of the sustainable energy sector.

Besides, farming, the assessment took into account also environmental and economic performance of fertiliser manufacturing. This is a most energy-intensive and polluting farm-upstream sector. In the Western Balkans it is an important employer and economic generator, whose existence would be threatened by a large-scale conversion to organic farming.

Key results

The results are quite favourable for the two organic scenarios. The BAU scenario involves the continued degradation of the agricultural sector, leading to 10% less jobs; reduced soil fertility and 10% lower food productivity than the baseline. It creates 41% higher RVA than the baseline, but still results in a negative value: -449 million Euros per year. The ECO scenario exhibits a 10% higher employment and produces 8% more food than the baseline. Its RVA is 1.7 times higher than in the baseline and results in 551 million Euros per year. The ECO+ scenario achieves a 13% higher employment and a 34% increase in production than the baseline. It creates 3.5 times higher RVA than the baseline, resulting in 2 billion Euros per year.

The environmental damage of all scenarios is lower than of the baseline: by BAU 15% and the two ECO scenarios 17% lower. Damage to air accounts approximately 70% of the environmental costs in all scenarios. An additional nearly 20% is contributed by damage to climate, while damage to water and soil appear insignificant.

Main conclusions and suggestion for the way forward

This study represents a pioneering effort in assessing the feasibility of different development scenarios of the agriculture sector in the Western Balkans. The current farming method in the region (baseline) results in low food productivity; creates substantial environmental costs and does not provide a positive RVA. It ought to be changed.

The study scenario results indicate that a re-orientation to organic farming is a promising solution for the Western Balkans region – both from the food productivity, environmental and economic point of view. Conversion to organic farming provides more jobs, grows more food, creates less environmental costs and is more profitable (expressed in terms of RVA) than the current production methods. The results also suggest that by opting for BAU scenario, Western Balkan policy makers would make a big strategic mistake: they would have more unemployed people, less food, less money and worse state of environment.

Yields remain the key factor determining the feasibility of a shift to organic farming in the Western Balkans. But having in mind that organic farming goes hand in hand with careful management, the shift to organic farming, as also demonstrated in other countries with similar agricultural problems, would not necessarily lead to lower yields.

Conversion to large-scale organic farming requires high human and social capital. Organic farming is low-input in terms of the use of agrochemicals, but is high-input in terms of knowledge and skills needed. However, a shift to large-scale organic farming is not just a question of skilled and committed farmers. It requires high human and social capital among many stakeholders: policy makers, scientists, farm extension officers, businessmen, farmers, consumers, etc. In the case of the Western Balkans where farmers (and some other stakeholders) have a relatively low level of general education and poor agricultural training, limited human and social capital will certainly be the main obstacle preventing a greater spread of organic farming. Policy efforts should therefore focus primarily on stimulating the formation of social capital and increasing the human capacities of all stakeholders involved in the organic food chain: production, processing, distribution/trade and consumption. Besides informative policy instruments, a mix of appropriate regulatory and economic policy instruments should be put in place to facilitate further development and a wide-spread adoption of organic farming in the Western Balkans.

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