# ECONOMIC EFFECTS OF ORGANIC PRODUCTION IN FINLAND

Leena Viitaharju, Ruralia Institute, University of Helsinki

Susanna Kujala, Ruralia Institute, University of Helsinki

Hannu Törmä, Ruralia Institute, University of Helsinki

Corresponding author: Leena Viitaharju, leena.viitaharju@helsinki.fi

## Implications

Money is usually one of the strongest reasons influencing decision making when choosing between organic and conventional production or usage, both in case of producers and decision makers of municipalities. The results of the survey directed to organic producers in Finland implied that the contribution to profitability of organic farming would be the most effective way to get more farmers to make the decision to convert from conventional to organic production. Naturally there are also many other reasons that affect the decision to make the conversion, for example environmental and health issues. According to the survey targeted to municipalities’ decision makers, municipalities would use more organic products if they had more financial resources in use.

The model calculations showed that the economic impacts of organic production in Finland are already meaningful and the impacts will increase while the share of organic production rises. However, the increase in organic production would lead to minor negative economic effects as the share of conventional production would simultaneously decrease. Nevertheless, it would be useful, for example, to increase the efficiency of organic production so that the conversion from conventional to organic production would be more beneficial to the society from the economic point of view.

## Background and objectives

The Finnish government has set a goal to increase the share of organic production to 20 % of area under cultivation by 2020 (Ministry of Agriculture and Forestry, 2013). In year 2015, the share was 9.9 % of the cultivated area, so there is still some catching up to do in order to reach the goal. Globally compared, Finland was the 13th in the share of organic production in 2015. For example, the share of organic production is higher in Sweden (16.4 %) and Estonia (16.2 %). In Finland, approximately 350 million euros are used every year in public procurement to buy food stuffs. Only a few pro cent of that sum is used for organic products.

The main objective of this study was to produce new information about regional and national economic effects of organic production. New information about organic production and its impacts on economy helps for example politicians to make decisions concerning organic production.

## Key results and discussion

According to the organic farmer survey, the most important reason for converting to organic production was lower costs or improved profitability. Therefore, the change seems to have been market-driven in many cases. In addition, such concepts as higher price and demand from customers, as well as growing organic markets are other sides of the same coin. Environmental and health concerns were also important motivators for the change.

The producer survey addressed also the geographical division of sales. The responses showed that around two thirds of the organic production in Finland was sold within the own NUTS2 region, and only 1 % was exported. In many regions, there were no exports at all. Almost half of the respondents (46 %) believed that the value of their organic production would be roughly the same in 2020 as it was in 2014. A third (36 %) believed that the value of production would grow. The rest 18 % foresaw a decrease in their production value. The respondents’ view on the future could be translated as a growth of 3 % from 2014 to 2020. Thus, such a growth would not be enough to reach the national goal set up by the Finnish government.

Most of the respondents of the decision maker survey considered organic food products as a good alternative for public kitchens, but the municipal budgets are so tight nowadays and therefore the procurement is usually directed to conventional food products. Domestic origin is often the most important procurement criteria in food stuffs, but there are municipalities in Finland that have put organic in their procurement strategy. Even though the decision makers of the municipalities usually have a rather positive attitude towards organic products, their low value-added was regarded as a hindering factor. Contemporary public kitchens need products that have a high value-added. Thus, the width and suitability of the assortment of organic products alongside with the price will set the pace for the increase of the usage of organics in the public sector.

According to the calculations, the economic effects of organic production in Finland are approximately 3 400 person-years and 680 million euros. Almost half of that concerns crop production, about one-fourth milk production, about one-fifth meat production and about 5 % horticultural production. The regional economic effects are the biggest in western Finland. The growth of 3 % (estimated by the respondents) in organic production would make a small change to current situation. The employment would grow by 50 person-years and the GDP by 15 million euros between years 2014 and 2020.

When the RegFinDyn model is set up to grow the share of organic production according to the stated national goal (20% of the cultivated land used for organic production), it itself has positive effects to the economy. However, the land of organic cultivation cannot grow if the conventional agriculture does not decrease by the same amount. A reduction of conventional agriculture leads into losses in employment and GDP. The combination of these two changes leads into a small decrease in Finland’s employment (-0.02 %) and GDP (-0.04 %) by year 2020. Still for many farms, the organic production seems to be more profitable than conventional when examined on a farm level.

## How work has carried out?

A central part of the data collection concerned two surveys: one directed to the organic producers in Finland and the other to decision makers of the Finnish municipalities. Altogether 840 organic farmers (20 % of the total) and 280 decision makers completed the questionnaires. Organic producers were approached in spring 2015 with an email survey, which was complemented with phone interviews and later in autumn 2015 with a postal survey. The survey to municipalities’ decision makers was carried out during the spring and summer 2016.

The other central method of this study was the use of a regional computable general equilibrium (CGE) model called RegFinDyn (for more information, see Törmä et al., 2015 and RegFin, 2017) of the Ruralia Institute to evaluate the regional economic effects of organic production now and in 2020. CGE models are economic models that use actual economic data to estimate how an economy might react to different changes. RegFinDyn is a dynamic model that takes into account the time dimension.

## References

Ministry of Agriculture and Forestry (2013). MORE ORGANIC! Government development programme for the organic product sector and objectives to 2020. Government Resolution 16 May 2013.

RegFin (2017). RegFin models. <http://www.helsinki.fi/ruralia/research/regfin.htm>. Accessed 25.4.2017.

Törmä Hannu, Kujala Susanna & Jouko Kinnunen (2015). [The employment and population impacts of the boom and bust of Talvivaara mine in the context of severe environmental accidents – A CGE evaluation](http://www.helsinki.fi/ruralia/asiantuntijapalvelut/ytp_fin/pdf/RegFinarticleRS46.pdf). *Resources Policy*, Vol. 46, pp. 127-138.