

Italian Agri-Food Sector under COVID-19

Subjects: **Economics**

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Here we have carried out a multidisciplinary analysis of the impact that COVID-19 had on the Italian agri-food sector during the national lockdown. In our opinion, this unprecedented economic crisis could be a turning point to deal with the overall sustainability of agricultural systems and foodstuffs. We suggest to focus on applied research and development, and technology transfer, the so called university "Third Mission," an area where the role of academia may be crucial and could add not only innovation and valorisation to the production chains of local enterprises, but also support the establishment of business networks in specific production segments.

Agriculture

Food industry

Research and Development

Technology transfer

Third Mission

New Breeding Techniques

Sustainable Farming Systems

1. Introduction

The purpose of this document is to sort and analyse data and rework information regarding the impact of the new Coronavirus, which is known to cause a Severe Acute Respiratory Syndrome in humans (SARS-CoV-2 better known as COVID-19), on the territorial production systems and agri-foodstuff sectors during the first three months of the pandemic crisis in Italy, and to develop some reflections on the scenario that could arise in the immediate post-emergency period, with some fruitful ideas and strategic guidelines for the country's economic and social recovery.

The Johns Hopkins University, which collects data on confirmed cases and deaths from Coronavirus worldwide, reports that as of 1st July 2020 there are around 10.5 million cases and more than 500,000 deaths worldwide (<https://coronavirus.jhu.edu/map.html>). Italy ranks sixth in the world for number of cases and second in Europe for number of deaths, after the United Kingdom. Comparing the increases in cases and deaths worldwide in the last weeks would confirm the hypothesis that, while the virus continues to spread at even higher speeds than before, its fatality rate may be decreasing. As a matter of fact, recurrent mutations currently in circulation for the COVID-19 appear to be either fully neutral or weakly deleterious, as demonstrated recently by van Dorp et al.^[1] Very recently, He et al.^[2] found also that the gut microbiota enhances antiviral immunity by increasing the number and function of immune cells, decreasing immunopathology, and stimulating interferon activity. In turn, respiratory viruses are known to influence microbial composition in the lung and intestine^[1]. Therefore, individual diets can affect the microbiota and the analysis of changes in the microbiota during SARS-CoV-2 infection may help predict patient outcomes and allow the development of specific therapies targeting the microbiota.

2. COVID-19 and Italian Agri-Food Sector

2.1. General Analysis of the Impact of COVID-19 on the Primary Sector, Including Agricultural Activity, Food Industry, and Forestry

In regards to the immediate impact of COVID-19 on the agri-food sector, the first ISMEA report (30 March 2020) is remarkable and paves the way for understanding the central role of agriculture and food industry on the supply of food products and their demand in the first weeks of Coronavirus spread during the National lockdown (available at the following link <http://www.ismea.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/10990>).

Since the beginning of the pandemic (in Italy the virus was first reported on 31 January 2020, then a cluster of cases was later detected in Lombardy on 21 February 2020^[3]), the agri-foodstuffs sector has been firmly in the foreground, in importance second only to the medical-health sector which, for obvious reasons, is constantly at the centre of attention, constituting the main focus of all media. On the local consumer front, there was an immediate instinctive response in the hoarding of basic necessities and food, and on the political front, the awareness that the proper functioning of the supply chain and the ability to ensure the supply of food represented an important indicator both economically and socially.

According to the ISMEA experts, on the basis of the data available and collected in this report, the agri-foodstuffs sector based on raw materials of vegetable and animal origin—with some obvious exceptions (such as nursery gardening and fishing)—has been and continues to be one of the least affected by the economic storm of these first months of pandemic emergency, largely confirming its stability and anticyclical property (i.e., sales not conforming to or following a cycle, which rise when the economy fades).

2.2. Ideas, Guidelines, and Strategies for the Post COVID-19 Recovery in the Bio-Territorial and Agri-Food and Dimensions for a Transition to Economic, Social, and Environmental Sustainability

Some general considerations and personal observations through first-hand experiences lead us to think that policies to support competitiveness and sustainability (economic, social, environmental) at the regional and local level are needed, as well as system resilience nationally. In fact, by focusing on applied research and technology transfer, Italian/Regional universities could contribute to innovation and enhancement of the production chains of local businesses and at the same time help the establishment and implementation of business networks for specific areas. Action from the government institutions is needed for a substantial improvement in the public-private relationship, including through better coordination of the State with the individual Regions. The hope is that science and culture can return to play a central role in our society, as their main actors have the potential to make a decisive contribution to the recovery of our country. In this context, the strategic importance of public-private cooperation for safe re-opening and re-starting is evident (for example, in Veneto, several manufacturing associations like Assindustria Venetocentro, Confindustria Veneto, Unioncamere Veneto, and regional philanthropic

foundations like Fondazione Cariparo have recently approved co-financing of the anti-Coronavirus “maxi-plan” for the Veneto Region and University of Padua with the Red Cross).

With regard to the political picture, we know that the “Cura Italia” (Heal Italy) Decree, whose bill was approved by the Chamber on 24th April, grants a series of immediate aid measures for businesses and workers, resulting in a total budget of around 25 billion Euros (decree no. 18/2020). With no doubt, it represents for the country an exceptional and powerful financial measure for the scope and urgency of its executive guidelines.

With the health emergency, it is widely stated by government authorities that it is easy to predict that in Italy there will be a uniform drive towards basic necessities (i.e., necessary goods including products and services that consumers will buy regardless of the changes in their income levels) to overcome the crisis. However, despite the importance of the agri-fish-foodstuffs sector, the “Cura Italia” Decree does not seem to have given it due recognition, providing for a limited package of measures in this regard.

References

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