July, 1, 2022

**TRENDS IN THE ITALIAN AGRICULTURAL ECONOMY AND LEGISLATION - YEAR 2021**

Italian agriculture does not engage the recovery but can count on extraordinary measures

Year 2021

In 2021 agriculture, forestry and fishing, which the previous year had distinguished itself as one of the sectors least affected by lockdowns, did not benefit from the general climate of recovery that characterized the second of the Covid-19 pandemic year. The non-agricultural production (secondary activities, in particular agritourism), most affected by the health crisis, marked a consistent recovery, but it was compromised by adverse climatic events that penalized the agricultural year. The production volumes of crops were particularly affected, while a good result was recorded for the livestock sector. The general sensitive rise in prices has sustained the value of production but has led to a worsening of the terms of trade it has sector operators penalized. The war in Ukraine, which has been going on for over two months, has nullified all possible predictions: the tightening of the price increases of energy raw materials and the new supply difficulties of companies, in addition to the pre-existing supply bottlenecks, could have long-term consequences for Italian agriculture.

There are many initiatives for the agricultural sector, launched in response to the crisis linked to the pandemic, and more recently to that in Ukraine. The 2022 budget law continues the path of strengthening the agri-food system, in the context of support for the growth and competitiveness of the national economy. The set of interventions consists of investments for businesses, supply chains, employment and product protection, also by reiterating existing provisions and applying the instruments of the EU’s common agricultural policy (CAP) more extensively. In terms of emergency supplies, Italy has been assigned the largest share of the Next Generation EU, whose implementation has now come to life. However, the conflict in Ukraine has revived the theme of food security, prompting the EU to ask for the revision of national planning documents to strengthen the resilience of agriculture and reduce the dependence on foreign inputs of some inputs. The objectives focus on increasing the production of renewable energy and strengthening more sustainable production methods; at the same time, anti-crisis measures are being activated for the most affected markets, as well as the resumption of the use of fallow land, to increase production.

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The agricultural and agri-food sector in the phase of the pandemic crisis

Since the beginning of the pandemic, the production chain in the agriculture, forestry and fishing sector has not suffered significant interruptions: the activities related to cultivation and fishing have been included, with some differentiations, among those deemed necessary and, therefore, for them, were not applied the prohibitions imposed for other production or trading activities in order to contain the spread of the infection.

Indeed, guaranteeing food safety has been one of the key priorities of governments and the European Commission. However, even the primary sector has had to contend with the complexities within the logistic chains, the restrictions on freedom of movement, the significant shortage of human resources (especially immigrants unable to reach the places of seasonal production) as well as the generalized fall of consumer income. The sector in 2020 lost 1.8% of production and 4.7% of value added in volume, compared to a decline of 8.8% recorded for the entire national economy.

The crisis has damaged above all secondary activities, first of all the agritourism sector. The fishing sector in 2020 also suffered a heavy downsizing (-19.9% of production and -26.8% of value added in volume).

In 2021, agriculture did not benefit from the recovery of the national economy as it was strongly affected by adverse climatic factors: production volumes in fact decreased further (-0.4%) and the significant increase in production costs led to a new drop in value added of 0.8%. Nonetheless, positive signs came from the data on employment and agricultural incomes; the agri-food sector also recorded a growth in volume of 2.4%.

From resilience in 2020 to a slowed recovery in 2021

In the 2020-2021 two-year period, agriculture, as an essential activity, enjoyed a level of operations that allowed it to maintain its contribution to the formation of national wealth unchanged. Above all secondary activities and support services paid the price of the crisis, but the resilience capacity of the sector made it possible to contain the loss of value added, which in 2020 decreased in volume by 4.7%, stopping just above the 33.3 billion euros.

However, in 2021 the agriculture, forestry and fishing sector suffered the negative effects of adverse climatic conditions to which was added, especially in the second half of the year, the sharp rise in the costs of production inputs. In contrast to the other economic sectors, which experienced a general recovery of value added, the sector therefore recorded a further modest contraction: production decreased in volume by 0.4% and value added by 0.8% (Table 1). Typical agricultural products have undergone a 1.2% contraction in the volume of production and 0.6% in the value added and substantial decreases have also affected forestry, whose production has lost 5.3% in volume (-3.2% value added) and fishing (-1.8% production and -2.9% value added in volume). Only the secondary agricultural activities, which in 2020 had experienced a drastic reduction in production volumes (-17.2%), recorded a consistent recovery in 2021 (+ 9.6%).

The distinctive element of the two-year period, especially the last year, was the progressive increase in prices, which grew from 0.7% to 6.7%, and the sudden increase in the costs of intermediate consumption, from -1% in 2020 to + 8.5% in 202.

The value added of the food, beverage and tobacco industry, which grew by 1.6% at current prices but decreased by 3.3% in volume in 2020, marked a substantial increase in volume in 2021 (+ 6%) and a decrease of 2.6% at current prices (Table 2).

The recovery favored the agri-food sector as a whole which, after the contraction in the first year of the pandemic (-0.7% value added at current prices and -4.1% in volume), resumed growth in 2021, registering a 1% increase in value added at current prices and 2.4% in volume. However, in the overall national context, the recovery was less consistent than in the other sectors: in the photo of 2021, the agri-food sector represents 4.1% of the value added of the entire economy (4.3% in 2020), of which 2.2% comes from the primary sector (as in 2020) and 1.9% from the food industry (2.1% the previous year).

**TABLE 1. PRODUCTION AND VALUE ADDED OF AGRICULTURE, FORESTRY AND FISHING IN ITALY.**Years 2020 and 2021, current values in millions of euros and percentage changes

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ECONOMIC ACTIVITIES** | **2020** | | | |  | **2021** | | | |
| **Millions of current euro** | **Changes % in Volume** | **Changes % in price** | **Changes % in Value** |  | **Millions of current euro** | **Changes % in Volume** | **Changes % in price** | **Changes % in Value** |
| **Production of agricultural goods and services** | **53.113** | **+0,3** | **+0,7** | **+1,0** |  | **56.120** | **-1,2** | **+6,9** | **+5,7** |
| - Crop output | 30.301 | +1,6 | +2,1 | +3,8 |  | 32.034 | -3,7 | +9,8 | +5,7 |
| - Animal output | 16.016 | 0,0 | -2,1 | -2,0 |  | 16.890 | +1,8 | +3,6 | +5,5 |
| - Agricultural services | 6.796 | -4,4 | +1,1 | -3,3 |  | 7.196 | +3,4 | +2,4 | +5,9 |
| Non-agricultural secondary activities (+) (1) | 4.588 | -17,2 | -0,2 | -17,3 |  | 5.324 | +9,6 | +5,8 | +16,0 |
| Non-agricultural secondary activities (-) (1) | 1.021 | -1,2 | +3,0 | +1,8 |  | 1.090 | -8,4 | +16,5 | +6,7 |
| **Agricultural output** | **56.679** | **-1,4** | **+0,6** | **-0,8** |  | **60.355** | **-0,1** | **+6,6** | **+6,5** |
| Intermediate agricultural consumption (2) | 26.157 | +2,6 | -0,8 | +1,8 |  | 28.530 | +0,4 | +8,7 | +9,1 |
| **Value added of agriculture** | **30.522** | **-4,6** | **+1,8** | **-2,9** |  | **31.825** | **-0,6** | **+4,9** | **+4,3** |
| **Forestry output** | **2.556** | **-0,5** | **+3,6** | **+3,1** |  | **2.652** | **-5,3** | **+9,5** | **+3,8** |
| Intermediate forestry consumption (2) | 444 | -10,3 | +10,0 | -1,3 |  | 390 | -15,2 | +3,6 | -12,2 |
| **Value added of forestry** | **2.112** | **+1,7** | **+2,3** | **+4,1** |  | **2.262** | **-3,2** | **+10,6** | **+7,1** |
| **Fishing output** | **1.258** | **-19,9** | **-1,8** | **-21,3** |  | **1.283** | **-1,8** | **+3,9** | **+2,1** |
| Intermediate fishing consumption (2) | 588 | -12,7 | -13,9 | -24,8 |  | 615 | -0,5 | +5,0 | +4,5 |
| **Value added of fishing** | **670** | **-26,8** | **+12,0** | **-18,0** |  | **669** | **-2,9** | **+2,9** | **-0,1** |
| **Agriculture, forestry and fishing output** | **60.493** | **-1,8** | **+0,7** | **-1,2** |  | **64.290** | **-0,4** | **+6,7** | **+6,3** |
| Total intermediate consumption (2) | 27.189 | +1,9 | -1,0 | +0,9 |  | 29.534 | +0,1 | +8,5 | +8,6 |
| **Value added of Agriculture, forestry and fishing** | **33.303** | **-4,7** | **+2,0** | **-2,8** |  | **34.756** | **-0,8** | **+5,2** | **+4,4** |

1. Non-agricultural secondary activities carried out in the agricultural sector are mainly: agritourism, processing of milk, fruit and meat, production of renewable energy (highlighted with a (+) sign). Agricultural secondary activities carried out by non-agricultural sectors, mainly related to crops and livestock, are carried out, for example, by commercial enterprises (highlighted with a (-) sign).
2. Intermediate consumption includes indirectly measured financial intermediation services, i.e. the cost incurred for the intermediation service, implicit in the interest flows received and paid by economic operators.

**TABLE 2. VALUE ADDED AT BASIC PRICES BY SECTOR OF ECONOMIC ACTIVITY IN ITALY.**Years 2020 and 2021, current values in millions of euros and percentage changes

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ECONOMIC ACTIVITIES** | **2020** | | | |  | **2021** | | | |
| Millions of current euro | Changes % in Value | Changes % in Volume | % share of the total economy |  | Millions of current euro | Changes % in Value | Changes % in Volume | % share of the total economy |
|  |
| Agriculture, forestry and fishing | 33.303 | -2,8 | -4,7 | 2,2 |  | 34.756 | +4,4 | -0,8 | 2,2 |
| Industry | 292.171 | -7,9 | -11,2 | 19,5 |  | 322.275 | +10,3 | +11,9 | 20,3 |
| - of which food, beverages and tobacco | 30.754 | +1,6 | -3,3 | 2,1 |  | 29.965 | -2,6 | +6,0 | 1,9 |
| Construction | 65.844 | -5,2 | -6,3 | 4,4 |  | 78.577 | +19,3 | +21,3 | 4,9 |
| Services | 1.107.111 | -7,0 | -8,5 | 73,9 |  | 1.155.142 | +4,3 | +4,5 | 72,6 |
| **Total agri-food (Agriculture, forestry and fishing + food, beverage and tobacco industry)** | **64.057** | **-0,7** | **-4,1** | **4,3** |  | **64.720** | **+1,0** | **+2,4** | **4,1** |
| **Total economic activities** | **1.498.430** | **-7,0** | **-8,8** | **100,0** |  | **1.590.749** | **+6,2** | **+6,6** | **100,0** |
| **Gross Domestic Product at market prices** | **1.656.961** | **-7,8** | **-9,0** |  |  | **1.775.436** | **+7,2** | **+6,6** |  |

In 2020, employment in agriculture, forestry and fishing, measured in Annual Work Unit (AWU), decreased by 2%, reflecting a 3.4% decline in the component of dependent work and 1.3% than the independent one. Even more marked was the decline in employment in the food industry (-5.2%), which led to an overall decline of 2.8% in labor input in the agri-food sector. Signs of a clear turnaround were recorded in 2021: Ula grew by 3% in agriculture (+ 5.5% employees and + 1.7% self-employed) and by 5.4% in the food industry, recovering what was lost from the agri-food sector in the previous year in terms of employment (+ 3.6%) (Tables 3 and 4).

**TABLE 3. ANNUAL WORK UNIT (AWU) BY SECTOR OF ECONOMIC ACTIVITY IN ITALY.**Years 2020 and 2021, thousands of units and percentage changes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ECONOMIC ACTIVITIES** | **2020** | |  | **2021** | |
| Total AWU in thousands of units | Changes % |  | Total AWU in thousands of units | Changes % |
|  |
| Agriculture, forestry and fishing | 1.223 | -2,0 |  | 1.259 | +3,0 |
| Industry | 3.355 | -10,7 |  | 3.704 | +10,4 |
| - of which food, beverages and tobacco | 408 | -5,2 |  | 430 | +5,4 |
| Construction | 1.360 | -8,8 |  | 1.618 | +18,9 |
| Services | 15.716 | -10,9 |  | 16.710 | +6,3 |
| **Total agri-food (Agriculture, forestry and fishing + food, beverage and tobacco industry)** | **1.630** | **-2,8** |  | **1.689** | **+3,6** |
| **Total economic activities** | **21.653** | **-10,3** |  | **23.291** | **+7,6** |

The compensation of employees, which in 2020 had decreased by 0.8% in agriculture, forestry and fishing (compared to -1% of gross wages), grew by 2.9% the following year and also the gross wages and gross fixed investments have abundantly recovered what they lost in 2020 (Table 4).

**TABLE 4. ANNUAL WORK UNIT (AWU), SALARY AND INVESTMENTS IN AGRICULTURE, FORESTRY AND FISHERIES IN ITALY.** Years 2020 and 2021, thousands of units, current values in millions of euros and percentage changes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **AGRICULTURE, FORESTRY AND FISHING ACTIVITIES** | **2020** | |  | **2021** | |
| **AWU in thousands of units** | **Changes %** |  | **AWU in thousands of units** | **Changes %** |
| AWU employees | 419 | -3,4 |  | 442 | +5,5 |
| AWU self-employed | 803 | -1,3 |  | 817 | +1,7 |
| Total AWU | 1.223 | -2,0 |  | 1.259 | +3,0 |
|  | **Millions of current euro** | **Changes %** |  | **Millions of current euro** | **Changes %** |
| Income from employment | 9.467 | -0,8 |  | 9.743 | +2,9 |
| Gross internal salary | 7.770 | -1,0 |  | 7.983 | +2,7 |
| Social contributions paid by the employer | 1.696 | -0,2 |  | 1.760 | +3,7 |
| Gross fixed investments (current values) | 9.208 | -11,7 |  | 10.920 | +18,6 |
| Gross fixed investments (chained values with reference year 2015) | 8.749 | -11,7 |  | 10.234 | +17,0 |

# **In twenty years, 20% of the work units have been lost**

The labor input employed in the primary sector has peculiar characteristics compared to the rest of the economy, also because it is characterized by fiscal and administrative laws and regulations that differ from those adopted for the other economic sectors.

From the beginning of the 2000s to today, the labor input in agriculture, forestry and fishing, measured in Ula, has undergone a drastic reduction, from almost 1.5 million units in 2000 to just over 1.2 million in 2021 and showing a much more marked contraction trend of the national economy as a whole (Figure 1). The decline was essentially concentrated in the years from 2000 to 2013, when the AWU in the primary sector reached the minimum point with less than 1.2 million units. Subsequently, in the years 2014-2016, labor input showed a slow recovery and then again a negative dynamic between 2016 and 2020. In 2021 there was a recovery, with overall employment returning to pre-pandemic levels, with approximately 1 million 259 thousand AWU.

**FIGURE 1. PERFORMANCE OF WORK UNITS (AWU) FOR AGRICULTURE, FORESTRY AND FISHERIES AND TOTAL ECONOMY*.*** Years 2000-2021, base index numbers 2000 = 100

**FIGURE 2. AGRICULTURE, FORESTRY AND FISHING WORK UNITS BY PROFESSIONAL POSITION.** Years2000-2021, thousands of units

The progressive contraction of labor input over the years was determined by the trend of self-employed people (equal to over 65% of total employees) who, from 2000 to 2021, fell by almost 280,000 units (Figure 2). The number of employees was more stable, with a fluctuating trend tending upwards over time, and in 2021 there were about 50 thousand more employees than in 2000.

From 2000 to 2021 the total AWU of the primary sector represented between 5.1% and 6.3% of the total of the entire economy. In 2020, the incidence of AWU in the sector increased compared to previous years, reaching 5.6%, the highest value since 2004.

In the same period, the weight of the value added of the agricultural sector on the total economy showed a slow decline, from 2.9% in 2000 to just over 2% between 2007 and 2011, to return to slightly increase in the years 2020-2021, amounting to around 2.2%.

Self-employed workers in the primary sector represent a significant share of self-employed employment in the entire economy. In the period 2000-2012 their weight decreased and the incidence on the national total of self-employed fell to 10.9% from 14.5% in 2000 and 2001, to then settle around 11.5% in the period 2013- 2019. In the last two years, the contribution of the primary sector to the overall employment of self-employed persons has returned to growth, accounting for 13.2% in 2020 and 12.4% in 2021. Employees in the primary sector, on the other hand, represented, almost stably, about 2.5% of the total economy for the entire period 2000-2021 (Figure 4).

**FIGURE 3. PERFORMANCE OF WORK UNITS (AWU) EMPLOYEES AND SELF-EMPLOYED IN AGRICULTURE, FORESTRY AND FISHERIES.** Years 2000-2021, base index numbers 2000 = 100

**FIGURE 4. IMPACT OF AGRICULTURE, FORESTRY AND FISHERIES WORK UNITS (AWU) ON THE TOTAL ECONOMY BY POSITION IN THE PROFESSION.** Years 2000-2021, percentage values

Another relevant aspect of employment in the agriculture, forestry and fishing sector is the irregularity rate of the labor input used. The trend of illegal immigrants recorded, like the total economy, a sharp decline in 2003 due to the effect of law 189 of 30 July 2002 (also known as the "Bossi-Fini" law) which, in terms of immigration, marked the beginning of the work regularization phase.

After 2003, irregular employment in the primary sector recovered an upward trend until 2008, recording a growth rate higher than that of the total economy. After substantial stability in the 2009-2013 period, irregular workers in the agricultural sector resumed growth until 2018. In the last available year, 2019, the irregular AWU have decreased overall, although for the total economy the turnaround has already occurred the previous year.

Considering the rates of irregularity, the agricultural sector presents a very different situation between employees and self-employed. For employees, the average irregularity rate for the 2000-2019 period was 35.6%, more than double that of the total economy (15.3%). A specular situation was recorded for the self-employed: the average rate of irregularity for the agricultural sector is 7.6%, about half of that resulting for the total economy (14.4%).

The regularization of 2003 had a significant impact only on the irregularity rate of employees (down to 28.8% from 34.5% in 2002) while that of the self-employed remained unchanged (6.7%).

After 2003, the rates of irregularity increased continuously until 2019. For the total AWUs of agriculture, forestry and fishing, the irregularity rate, which stood at 13.9% in 2000, reached 18.8% in 2019. It remained lower than that of the national economy as a whole until 2004, indeed undergoing a more incisive downsizing of the total following the measures in favor of the emergence in 2003.

Since 2005, however, the rate of irregularities in the agriculture, forestry and fishing sectors has overtaken that of the national economy, showing a trend of constant growth. The gap between the two indicators has gradually widened since 2015 to reach a differential of almost 4 percentage points in 2019 (Figure 5).

**FIGURE 5. RATE OF IRREGULARITY OF THE LABOR INPUT OF AGRICULTURE, FORESTRY AND FISHING AND OF THE TOTAL ECONOMY.** Years 2000-2019, percentage values

Compensation from employment in the primary sector have shown a growing trend since the early 2000s (Figure 6). In fact, the relative stability of the employed work units was accompanied by an upward trend in the average income per employee.

**FIGURE 6. TREND IN INCOME FROM EMPLOYEES IN AGRICULTURE, FORESTRY AND FISHERIES.** Years 2000-2021, base index numbers 2000 = 100

**FIGURE 7. IRREGULAR LABOR UNITS IN AGRICULTURE, FORESTRY AND FISHERIES AND TOTAL ECONOMY.** Years 2000-2019, thousands of units

**FIGURE 8. RATE OF IRREGULARITY OF THE AGRICULTURE, FORESTRY AND FISHING WORK INPUT BY POSITION IN THE PROFESSION.** Years 2000-2019, percentage values

Agricultural production: between pandemics and adverse climatic events

As mentioned, in 2020 the decline in agricultural production was substantially determined by the decrease in the volume of secondary activities, heavily penalized by the mobility restrictions imposed to stem the pandemic, while in 2021 the negative effects of the pandemic crisis were attenuated and the gradual recovery of all economic activities at full capacity has favored the recovery of the most penalized sectors, especially the agritourism and horticultural sector, and of livestock production, driven by the recovery in consumption.

On the other hand, some extreme seasonal events (late spring frosts and prolonged summer drought) have affected most of the crops (especially for woody crops and in particular for fruit trees), with production losses and damage to structures and infrastructures in the rural areas.

Starting from the second half of 2021, the overall trend of the agricultural sector was also affected by the significant surge in prices, both in terms of costs (intermediate consumption) and products sold. Production recorded an increase in value of 6.5% while production volumes underwent a slight contraction (-0.1%). Within the sector, the performances were rather heterogeneous. Crops and livestock productions have increased in value in a similar way but, while for crops the increase in value was determined by the significant increase in prices with a consistent decline in volumes, in the livestock sector the production volumes have increased and prices are grown to a lesser extent (about a third of those of crops).

2021 saw an overall growth in agricultural producer prices of 6.6%, the highest since 2011, when the rise was 7.1%. The increase, with varying intensity, affected all sectors and was mainly triggered by the significant rise in the prices of production inputs (Table 5).

Sharp rise in crop prices

In 2021 the value of production of agricultural crops increased by 5.7% due to the significant increase in prices (+ 9.8%), which offset the 3.7% decrease in the quantities produced. The result was better than in 2020, when the value of crop production had increased by 3.8%, with an increase in volumes of 1.6% and a significantly lower price increase.

The unfavorable climatic year, characterized by spring frosts, prolonged summer drought and seasonal lag, coincided with the recurrence of some phytosanitary problems (Asian bedbug) and heavily influenced the production volumes of fruit products (-18.9%), especially for some types such as pears, apples, peaches, nectarines, and the nut sector; only citrus fruits had a trend in line with that of 2020.

Even leguminous crops, after the significant decline in volumes in 2020 (-3.7%), underwent a further significant downsizing in 2021 (-11.8%). The climatic events also penalized the volumes of wine production (-8%), in marked contraction after the increase in 2020 (+ 3.9%): the wine sector, however, has shown satisfactory signs both in terms of quality, thanks above all to the ability of producers to make the most of the late stages of maturation and harvesting and marketing, especially abroad. Industrial crops also fell sharply further (-6.3% in volume after -2.2% in 2020) mainly due to the continuing crisis in tobacco and soybean production; the decrease in production volumes for the vegetable sector was more contained (-1.7%).

2021, on the other hand, was favorable for the production of olive oil. Following the normal cyclical trend[[1]](#footnote-1), after the downsizing of volumes in 2020 (-3%), production grew by 9.9%. The volumes of flower crops (+ 3.1%) and nurseries (+ 2.9%) are also recovering, after the commercial blocks and the measures taken to combat the pandemic in 2020 (limitations of ceremonies / events and suspension of activities care and landscaping) (the loss in volume of the horticultural sector in the first year of the pandemic -8.4%).

The economic crisis due to the health emergency, the subsequent increase in demand in the post-pandemic phase, the negative effects of the pandemic on logistics and transport, adverse climatic conditions, the increase in prices of raw materials necessary for the agri-food production chain are all factors which have determined an inevitable upward trend in prices in agricultural crops.

After the limited increases in 2020 (+ 2.1%), in 2021 the price increases took on significant dimensions, reaching almost the two figures in percentage terms (+ 9.8%). The increase concerned all agricultural crops, in particular cereals (+ 31.9% against + 4.8% in 2020), industrial crops (+ 27.4% against + 7.3%), fodder crops (+ 17.8% versus -4.2%), fruit (+ 12.7% versus + 8.9%), olive oil (+ 12.6% versus -8.4%) and legumes (+ 10.6% versus + 1.8% in 2020).

Recovery for animal production

The difficulties of the livestock sector in the early stages of the pandemic, with the reduction in consumption and the effects above all on the slaughter of animal meat, gradually reabsorbed in 2021, which closed with overall positive results for the sector, which experienced an increase of 5.5% of the value of production, a synthesis of an increase in both volumes produced and prices.

However, the recovery of the sector was held back by the increase in the prices of raw materials (feed) and other production inputs. Starting from the second half of 2021, producers have suffered a substantial reduction in their profit margins, which could lead them in the short term to revise their sales prices upwards, with a consequent negative impact on the full recovery of consumption.

After the decline in production in 2020 (-1.3% in volume), the reactivation of the logistic-distribution circuits and the recovery of the catering sector positively influenced the consumption of animal meat in 2021 (+ 2% in volume). Pork meat had an increase in volume production by 2.3% (after -3.6% in 2020), beef by 2% (-1.3% in 2020) and poultry by 1.7% (+ 1.3% in 2020).

Among the other livestock products, the good increase in milk volumes (+ 2.5%), in line with the good result already recorded in 2020 (+ 2.7%), and the collapse of honey production (-66.7) should be highlighted. % in 2021 against + 2.6% in volume in 2020), a production particularly penalized by adverse climatic events.

In terms of prices, after the significant drop in 2020 (-3.7%), in 2021 there was a generalized increase for all animal meat (+ 5.7%), with the main increases affecting poultry (+ 7.9%), pork (+ 7.5%) and beef (+ 4.3%). The price of milk also rose in 2021 (+ 1.4%) after the decline of the previous year (-1.5%).

Secondary activities and services: the value doubles in twenty years, agriculture is multifunctional

In 2021 the production of secondary activities grew by 9.6% in volume, recovering more than half of what was lost in 2020 (-17.2%). The recovery of agritourism (+ 16% in volume) after the collapse of 2020 (-48%), of direct sales and marketing (+ 10.9% against -19.8% in 2020) and of maintenance of parks and gardens (+ 8.1% against -25% in 2020); aquaculture was also significantly expanding (+ 10.3%) which in 2021 recorded the best result ever.

Positive signs were once again seen for the production of renewable energy, which grew by 8% in terms of volume, representing almost 48% of total secondary activities and exceeding 2.5 billion euros in value, highest share ever reached since the beginning of renewable energy production in agriculture.

For services activities (+ 3.4% in volume against -4.4% in 2020), the full recovery of economic activities resulted in a recovery in the activities of first processing of products in 2021 (+ 4.8% in volume) which in 2020 had suffered the effects of the limitations imposed by the health emergency (-11.1% in volume). Also increased the activities related to the implementation of new crops and plantations (+ 4.3%), those in support of animal breeding (+ 3.2%) and those in contract work (+2.8), which in any case do not they had suffered particular repercussions during the early stages of the pandemic crisis.

The prices of secondary activities, on the whole, grew in 2021 by 5.8%, those of services activities by 2.4%. In 2020, secondary activities had maintained substantial price stability (-0.2%) while those of services had had an increase of 1.1%.

Among the secondary activities, to increase in 2021 were mainly those relating to the production of feed (+ 10.3% compared to 2020 when prices remained stable), the marketing / direct sales of products (+7.3 % while prices had decreased by 1% in 2020) and agritourism activities, which registered an increase (+ 6.5% compared to -1.8% in 2020), likewise those of renewable energy production (+ 6.5% against + 1.2% in 2020). Among the service activities, there was a significant increase in the prices of activities in support of animal breeding (+ 4.6%) and those for the first processing of products (+ 4.3%), after the prices remained substantially unchanged.

The total value of secondary and services activities has doubled over the last twenty years, from € 6.3 billion in 2000 to € 12.5 billion in 2021; their weight on the overall production value of the sector has gone from around 14% in 2000 to over 20% in recent years.

The development of activities that increase the multifunctional role of agriculture, with the integration on the farm of the transformation processes of agricultural products and direct sales together with forms of diversification such as agritourism or energy production, have been added all those initiatives in terms of sustainability and landscape protection. From an environmental point of view, in fact, the role played by the agricultural sector in the processes of limiting emissions, mitigating climate change and managing natural resources (soil, water and biodiversity) is increasingly crucial.

**FIGURE 9. PERFORMANCE OF SERVICES AGRICULTURE ACTIVITIES.** Years 995-2021, current values in millions of euros

**FIGURE 10. PERFORMANCE OF SECONDARY AGRICULTURE ACTIVITIES.** Years 995-2021, current values in millions of euros

The high increase in input costs penalizes the market ratio

In 2021 the goods and services used by farmers in the production process (intermediate consumption) showed only a modest increase in volume compared to the previous year (+ 0.4%), but their cost was heavily influenced by the sharp rise in prices (Table 5).

Overall, the price of production inputs grew by 8.7% (-0.8% in 2020), an unprecedented rise in the last decade: to find an equally significant one, you have to go back to 2008, when 'was an 11.2% increase in the prices of production inputs. The progressive and rapid growth was concentrated above all starting from the second half of 2021 and concerned, in particular, fertilizers (+ 21.2%), animal feed (+ 15.5%) and energy (+ 13.5%).

The weight of energy consumption in the agricultural system is particularly relevant. Direct uses of energy for cultivation operations include fuels for mechanical tools used for grubbing, rolling, sowing and fertilization, heating of greenhouses for flowers, nurseries and vegetables and transport, while indirect consumption is those deriving from plant protection, fertilizers and fertilizers and use of plastic materials.

The cost of re-uses, that is the part of agricultural production reused in the production cycles, also increased strongly (+ 17.6%), after the decreasing trend of previous years. On the other hand, the price of products sold by farmers increased to a lesser extent, by 6.6%. The combination of these dynamics clearly penalized the operators in the sector who suffered a reduction of one and a half points in terms of market ratio compared to the previous year.

In this state of the situation, the war in Ukraine has introduced worrying elements of instability that threaten to have serious knock-on effects on the agricultural and agri-food sector. The generalized increase in raw materials and energy costs is progressively eroding the profitability of the sector, putting crops, livestock and the processing industry at risk.

The jump in the prices of agricultural raw materials and food for animals to produce milk and meat, the trend in gasoline and diesel prices in a country where more than two thirds of goods travel by road inevitably affects the costs of businesses with snowball effects on consumer spending.

Italian agriculture also suffers from the most direct impacts related to the sector's dependence on imports of raw materials from the countries involved in the conflict. Our country buys mainly sunflower oil from Ukraine, excluding that for non-food technical or industrial uses (about 46% of the imported quantity), corn (about 15%), common wheat and fertilizers, the shortage of which is putting I risk spring cultivation.

In addition, about 50% of the solid residues from the extraction of sunflower oils, used in the zootechnical sector as feed, also come from Russia and Ukraine. Exports of Italian agri-food are also at great risk, for which Ukraine is an important destination market.

**TABLE 5. TREND OF AGRICULTURAL PRODUCTION FOR MAIN SECTORS AND PRODUCTS.** Years 2020 and 2021, current values in millions of euros and percentage changes

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2020** | | | |  | **2021** | | | |
| **Millions of euros in current values** | % Quantity changes | % Price changes | % Value changes |  | **Millions of euros in current values i** | % Quantity changes | % Price changes | % Value changes |
| **AGRICULTURAL PRODUCTION** | **56.679** | **-1,4** | **+0,6** | **-0,8** |  | **60.355** | **-0,1** | **+6,6** | **+6,5** |
| **Agricultural crops** | **30.301** | **+1,6** | **+2,1** | **+3,8** |  | **32.034** | **-3,7** | **+9,8** | **+5,7** |
| Cereals | 4.071 | +3,4 | +4,8 | +8,3 |  | 5.217 | -2,9 | +31,9 | +28,1 |
| Legumes | 176 | -3,7 | +1,8 | -2,0 |  | 172 | -11,8 | +10,6 | -2,5 |
| Potatoes and vegetables | 9.035 | +2,0 | +2,5 | +4,6 |  | 9.125 | -1,7 | +2,7 | +1,0 |
| Industrial crops | 667 | -2,2 | +7,3 | +5,0 |  | 796 | -6,3 | +27,4 | +19,4 |
| Flowers | 1.231 | -9,0 | +6,5 | -3,0 |  | 1.295 | +3,1 | +2,0 | +5,2 |
| Forage | 1.707 | -0,3 | -4,2 | -4,4 |  | 2.008 | -0,2 | +17,8 | +17,6 |
| Viticulture products | 6.026 | +4,2 | -2,2 | +1,8 |  | 5.876 | -6,7 | +4,6 | -2,5 |
| *of which wine* | *4.081* | *+3,9* | *-2,5* | *+1,3* |  | *3.798* | *-8,0* | *+1,1* | *-6,9* |
| Olive growing products | 1.539 | -2,6 | -5,6 | -8,0 |  | 1.823 | +9,7 | +8,0 | +18,4 |
| *of which oil* | *1.274* | *-3,0* | *-8,4* | *-11,1* |  | *1.577* | *+9,9* | *+12,6* | *+23,7* |
| Citrus fruits | 1.151 | +3,2 | +3,7 | +7,0 |  | 1.239 | +0,5 | +7,1 | +7,6 |
| Fruit | 3.277 | +6,7 | +8,9 | +16,2 |  | 2.994 | -18,9 | +12,7 | -8,6 |
| Nurseries and other plant products | 1.420 | -7,9 | +6,5 | -1,9 |  | 1.490 | +2,9 | +2,0 | +4,9 |
| **Livestock farms** | **16.016** | **0,0** | **-2,1** | **-2,0** |  | **16.890** | **+1,8** | **+3,6** | **+5,5** |
| Animal meats | 9.223 | -1,3 | -3,7 | -4,9 |  | 9.945 | +2,0 | +5,7 | +7,8 |
| *of which cattle* | *2.798* | *-1,3* | *-2,6* | *-3,9* |  | *2.977* | *+2,0* | *+4,3* | *+6,4* |
| *of which equine* | *102* | *+0,7* | *+0,5* | *+1,2* |  | *100* | *-6,3* | *+4,8* | *-1,8* |
| *of which pigs* | *2.775* | *-3,6* | *-4,2* | *-7,7* |  | *3.052* | *+2,3* | *+7,5* | *+10,0* |
| *of which sheep and goats* | *157* | *-5,3* | *+1,5* | *-3,8* |  | *167* | *+4,7* | *+1,5* | *+6,3* |
| *of which poultry* | *2.668* | *+1,3* | *-4,7* | *-3,5* |  | *2.927* | *+1,7* | *+7,9* | *+9,7* |
| *of which rabbits and others minors* | *722* | *-0,5* | *-4,1* | *-4,6* |  | *722* | *+2,3* | *-2,3* | *0,0* |
| Milk | 5.249 | +2,7 | -1,5 | +1,1 |  | 5.452 | +2,5 | +1,4 | +3,9 |
| Eggs | 1.463 | -1,0 | +6,9 | +5,8 |  | 1.456 | +1,5 | -1,9 | -0,5 |
| Honey | 1 | +2,6 | +8,9 | +11,8 |  | 1 | -66,7 | +18,0 | -60,7 |
| Other zootechnical products | 11 | +3,8 | -2,8 | +0,9 |  | 9 | -24,6 | +3,6 | -21,9 |
| **Agricultural production of services** | **6.796** | **-4,4** | **+1,1** | **-3,3** |  | **7.196** | **+3,4** | **+2,4** | **+5,9** |
| **Non-agricultural secondary activities (+)** | **4.588** | **-17,2** | **-0,2** | **-17,3** |  | **5.324** | **+9,6** | **+5,8** | **+16,0** |
| **Non-agricultural secondary activities (-)** | **1.021** | **-1,2** | **+3,0** | **+1,8** |  | **1.090** | **-8,4** | **+16,5** | **+6,7** |
| **Intermediate consumption** | **26.157** | **+2,6** | **-0,8** | **+1,8** |  | **28.530** | **+0,4** | **+8,7** | **+9,1** |
| Fertilizers | 1.609 | +7,5 | -2,2 | +5,1 |  | 1.967 | +0,9 | +21,2 | +22,3 |
| Phytosanitary | 1.070 | +6,5 | +0,2 | +6,7 |  | 1.108 | +1,8 | +1,7 | +3,5 |
| Seed | 1.580 | +0,7 | +4,3 | +5,0 |  | 1.676 | +1,7 | +4,3 | +6,1 |
| Feed | 6.388 | +2,7 | +1,1 | +3,8 |  | 7.375 | -0,1 | +15,5 | +15,5 |
| Stable costs | 786 | -0,5 | +1,5 | +1,0 |  | 820 | +2,0 | +2,3 | +4,3 |
| Energy | 3.413 | +2,5 | -9,5 | -7,2 |  | 3.897 | +0,6 | +13,5 | +14,2 |
| Irrigated waters | 414 | +0,8 | +2,5 | +3,3 |  | 412 | -1,7 | +1,1 | -0,6 |
| Transport | 237 | -3,0 | +2,3 | -0,8 |  | 235 | -3,0 | +2,3 | -0,8 |
| Other | 7.821 | +2,4 | +1,4 | +3,9 |  | 7.866 | +0,7 | -0,1 | +0,6 |
| Re uses | 2.099 | -0,9 | -3,9 | -4,8 |  | 2.468 | -0,2 | +17,8 | +17,6 |
| Credit and insurance | 408 | +1,0 | +2,2 | +3,2 |  | 418 | -1,2 | +3,7 | +2,5 |
| *Financial intermediation services* | *332* | *+19,7* | *-3,7* | *+15,2* |  | *288* | *-8,8* | *-5,0* | *-13,4* |
| **GROSS VALUE ADDED TO THE BASIC PRICES** | **30.522** | **-4,6** | **+1,8** | **-2,9** |  | **31.825** | **-0,6** | **+4,9** | **+4,3** |

(1) Non-agricultural secondary activities carried out in the agricultural sector are mainly: agritourism, processing of milk, fruit and meat, production of renewable energy (highlighted with a (+) sign). Agricultural secondary activities carried out by non-agricultural sectors, mainly related to crops and livestock, are carried out, for example, by commercial enterprises (highlighted with a (-) sign).

The imbalance between producer prices and intermediate consumption has a significant weight

While it is certainly true that the agricultural sector has characteristics that make it resilient in terms of trends in value added, the effects of the economic crises on agriculture are nevertheless significant. In fact, the price dynamics associated with the recession phases can reinforce the asymmetries present along the agri-food chain, which reflect the different bargaining power of those who work there, resulting in a worsening of the terms of trade of farmers and, therefore, of the profitability of their business activity.

The imbalance between the prices of agricultural production and the prices of intermediate consumption places serious constraints on the development and stabilization of the already low agricultural incomes. The rebalancing of the prices of agricultural products with respect to those of production inputs therefore appears as one of the sectoral priorities, highlighting the weakness of the agricultural component within the agro-food chain. The value added, in fact, is not distributed evenly within the sector, thus compressing the prices of agricultural goods paid to producers in a worrying way.

The trend in the terms of market ratio of agriculture, measured by the ratio between the producer price index of agricultural products (output) and that of intermediate consumption prices (input) for domestic producers, is decidedly unfavorable for Italian farmers starting from the early 2000s, as the gap between the prices of goods and services necessary for their production process and the prices at which they sell their products on the market has gradually widened, except for some marginal downturns (Figure 11).

**FIGURE 11. TREND OF MARKET RATIO IN AGRICULTURE.** Years 1995-2021, base index numbers 1995 = 10

Relatively stable since 1995, from 2004 the market ratio suffered a vertical collapse, losing more than 20 points until 2008. The fall is essentially determined by the surge in the prices of intermediate goods, which accelerated sharply in 2007 and 2008 due to the dynamics of the oil price and the sharp rises (also due to speculative movements) in the value of raw materials and agricultural commodities (in particularly cereals).

In the following years, the prices of intermediate consumption continued to grow but at a slower rate, in any case higher than that of output prices: the deterioration of the market ratio therefore continued, albeit at a slower pace, to the point of touching the peak in 2011.

In the last decade, the market ratio has stabilized, indeed showing a slow recovery trend, albeit with some fluctuations: in 2021 it stood at 2.7 percentage points more than in 2011 but remaining enormously distant from the level of the 2003 (almost 20 points less).

**FIGURE 12. TREND OF MARKET RATIO AND VALUE ADDED IN AGRICULTURE.** Years 1995-2021, base index numbers 1995 = 100

Despite the unfavorable trend in relative prices, agricultural operators have often managed to make appropriate use of the instrument of diversification and reconversion of activities, orienting them in such a way as to optimize, as far as possible, the relationship between inputs and outputs, on the one hand widening the basket of products, also thanks to a greater offer of higher quality and certified ones, and on the other the connected and additional services, as demonstrated by the progressive growth of support and secondary activities, thus managing to safeguard the level of their value added even in particularly negative periods in terms of price trends.

The European context: recovery after the pandemic crisis

In 2020, the European agricultural economy showed, overall, a remarkable resilience capacity in the face of the difficulties related to the health crisis and the repercussions were limited. In 2021, based on initial estimates, the value of production in the agricultural sector, represented in the satellite account of agriculture (which also includes agricultural cooperatives producing wine and oil)[[2]](#footnote-2) showed signs of recovery for all the EU27 countries compared to the previous year. Faced with a reduction in production volumes of 0.2%, slightly greater than that experienced in 2020 (-0.1%), there has in fact been a consistent recovery: the value of agricultural production has reached, for the EU27, 444 billion euros at basic prices, ie 7.1% more than the previous year (Table 6).

In terms of quantity, the sectors with the greatest suffering were the wine (-13.4%) and fruit (-4.9%) sectors, while the production of olive oil (+ 13.3%) industrial crops (+ 5.8%) and cereals (+ 5.6%) marked a significant recovery.

In terms of value, olive oil, cereals and industrial plants were the most profitable crops (respectively + 43.1%, + 34.5% and + 30.4%). The decisive role in 2021 was the role played by the trend in producer prices which, driven essentially by the robust increase in the costs of intermediate inputs, resulted in a significant increase in general for all types of production, with a peak reached by olive oil, cereals and industrial plants. The livestock sector also recorded significant increases in production prices, with the exception of those for pigs.

With 81.6 billion euros (about 18.4% of the EU27 total) in 2021 France consolidated its leadership in agricultural production among the member states, followed by Italy (60 billion euros and 13.5% of the total), Germany (59.4 billion euros and 13.4% of the total) and Spain (56.4 billion euros, 12.7%); then the Netherlands (€ 30.3 billion, 6.8%) and Poland (€ 27.5 billion and 6.2%) (Table 7).

**TABLE 6. AGRICULTURAL PRODUCTION IN THE EU27 FOR MAIN PRODUCTS AND TYPES OF PRODUCT.** Years 2020 and 2021, current values in millions of euros and percentage changes

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PRODUCT** | **2020** | | | |  | **2021** | | | |
| **Million euro in current values** | **% Volume changes** | **% Price changes** | **% Value changes** |  | **Million euro in current values** | **% Volume changes** | **% Price changes** | **% Value changes** |
| **Crop output** | **219.441** | **-0,7** | **-0,3** | **-1,0** |  | **243.338** | **-0,4** | **+11,3** | **+10,9** |
| -Cereals | 47.337 | -3,6 | +3,2 | -0,5 |  | 63.668 | +5,6 | +27,4 | +34,5 |
| -Industrial crops | 19.021 | -1,1 | +3,6 | +2,4 |  | 24.808 | +5,8 | +23,3 | +30,4 |
| -Forage plants | 24.588 | +1,7 | -3,3 | -1,6 |  | 25.000 | +0,8 | +0,8 | +1,7 |
| -Vegetables and horticultural products | 57.234 | -0,4 | +0,2 | -0,2 |  | 60.609 | +0,0 | +5,9 | +5,9 |
| *of which plants and flowers* | *21.857* | *-2,4* | *+3,3* | *+0,8* |  | *23.637* | *-0,3* | *+8,5* | *+8,2* |
| -Potatoes | 12.444 | +7,1 | -20,8 | -15,2 |  | 12.004 | -6,5 | +3,1 | -3,5 |
| -Fruita | 30.441 | +0,9 | +9,4 | +10,4 |  | 29.301 | -4,9 | +1,2 | -3,7 |
| -Wine | 22.669 | +0,2 | -3,4 | -3,2 |  | 20.594 | -13,4 | +5,0 | -9,2 |
| -Olive oils | 3.528 | -23,4 | -11,7 | -32,3 |  | 5.049 | +13,3 | +26,4 | +43,1 |
| -Other crop products | 2.178 | -0,4 | -5,8 | -6,1 |  | 2.306 | +3,3 | +2,5 | +5,9 |
| **Animal output** | **158.966** | **+1,3** | **-2,3** | **-1,1** |  | **162.808** | **-0,3** | **+2,7** | **+2,4** |
| - Animals | 93.237 | +1,3 | -2,9 | -1,6 |  | 93.627 | +0,3 | +0,2 | +0,4 |
| *of which cattle* | *27.966* | *+1,8* | *-2,8* | *-1,0* |  | *29.784* | *+0,4* | *+6,1* | *+6,5* |
| *of which pigs* | *38.816* | *+1,6* | *-2,9* | *-1,3* |  | *35.835* | *+1,3* | *-8,8* | *-7,7* |
| *of which poultry* | *19.331* | *+1,0* | *-3,9* | *-3,0* |  | *20.004* | *-2,6* | *+6,2* | *+3,5* |
| - Animal products | 65.729 | +1,2 | -1,6 | -0,4 |  | 69.181 | -1,0 | +6,3 | +5,3 |
| **Agricultural goods output** | **378.407** | **+0,1** | **-1,2** | **-1,0** |  | **406.147** | **-0,3** | **+7,7** | **+7,3** |
| Agricultural services output | 20.539 | -0,2 | +0,8 | +0,5 |  | 21.374 | +1,8 | +2,2 | +4,1 |
| **Agricultural output** | **398.946** | **+0,1** | **-1,1** | **-1,0** |  | **427.521** | **-0,2** | **+7,4** | **+7,2** |
| Secondary activities | 15.421 | -5,4 | +1,0 | -4,4 |  | 16.375 | -0,2 | +6,4 | +6,2 |
| **Output of the agricultural 'industry'** | **414.367** | **-0,1** | **-1,0** | **-1,1** |  | **443.896** | **-0,2** | **+7,4** | **+7,1** |
| Intermediate consumption | 236.370 | +0,8 | -1,6 | -0,8 |  | 259.611 | +0,6 | +9,2 | +9,8 |
| **Gross value added at basic prices** | **177.997** | **-1,3** | **-0,2** | **-1,5** |  | **184.285** | **-1,3** | **+4,9** | **+3,5** |

Among the 27 states of the Union, 22 recorded a positive trend in the value of agricultural production in 2021. The greatest increases involved, among the main member countries, Romania (+ 29.5%), Spain (+ 7.8%), The Netherlands (+ 7.4%), Poland (+ 7%), France (+ 6.9%), Italy (+ 5.6%) and Germany (+ 3.1%).

The agricultural value added stood at 184 billion euros for the EU as a whole, marking an increase of 3.5% compared to 2020. In this context, it should be mentioned the exploit of France (+ 12.7%) which, with 35.1 billion euros, reached first place in the ranking, overtaking Italy. Despite having increased its agricultural value added by 2.3%, our country stopped at 32.7 billion euros, losing a leadership that had lasted continuously since 2013. Spain (29.7 billion) and Germany (19.4 billion) appear in third and fourth position.

Among the major producers, only Romania managed to outperform France (+ 23.3%), while for the other main Member States the increase in value added was more contained (+ 3.8% for Spain, + 2.4% for the Netherlands, + 2.3% for Italy) and in some cases negative (Poland -17.8%, Germany -6.1%).

With regard to EU agricultural inputs (intermediate consumption), after the slowdown in 2020 (-0.8% in value), in 2021 there was a significant increase in the value of costs (+ 9.8%), mainly due to the increase in the price of energy products and fertilizers. Prices (measured in terms of base price) showed a general consistent rise for the whole of the EU27 (+ 7.4%). The most marked increases were found in Romania (+ 10.8%), France (+ 8.6%), Greece (+ 7.9%), the Netherlands and Poland (+ 7.8%) and Spain (+ 7.6%).

The agricultural income indicator A, which measures labor productivity in agriculture, grew by 1.5% at EU27 level but, among the main Member States, only Romania (+ 28%) and France (+16.3 %) recorded significant growth, while all the others were negative (Poland -18.9%, Germany -10.8%, Spain -5.2%, Greece -3.3%, Netherlands -2.8% and Italy -1.6%).

**TABLE 7. PRODUCTION, VALUE ADDED AND INDICATOR A IN AGRICULTURE FOR EU27 AND MEMBER STATES.** Years 2020 and 2021, current values in millions of euros and percentage changes

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **AGRICULTURAL ACTIVITIES (EAA)** | **2020** | | | | | | |  | **2021** | | | | | | |
| **PRODUCTION** | | | | **VALUE ADDED** | | **Agricultural income indicator A** |  | **PRODUCTION** | | | | **VALUE ADDED** | | **Agricultural income indicator A** |
| **Member states** | **Million euro in current values** | **% Volume changes** | **% Price changes** | **% Value changes** | **Million euro in current values** | **% Volume changes** |  | **Million euro in current values** | **% Volume changes** | **% Price changes** | **% Value changes** | **Million euro in current values** | **% Volume changes** |
| **EU27** | **414.367** | **-0,1** | **-1,0** | **-1,1** | **177.997** | **-1,5** | **+1,8** |  | **443.896** | **-0,2** | **+7,4** | **+7,1** | **184.285** | **+3,5** | **+1,5** |
| **Belgium** | 8.965 | +0,6 | +0,6 | +1,1 | 2.673 | +1,7 | +0,7 |  | 9.781 | +0,9 | +8,1 | +9,1 | 2.538 | -5,0 | -9,2 |
| **Bulgaria** | 4.022 | -11,0 | +7,3 | -4,5 | 1.748 | -1,1 | +2,2 |  | 5.329 | +17,5 | +12,7 | +32,5 | 2.530 | +44,7 | +32,9 |
| **Czech Republic** | 5.631 | +5,1 | +0,4 | +5,6 | 1.935 | +10,5 | +9,9 |  | 6.050 | -1,0 | +5,2 | +4,1 | 2.013 | +4,0 | +1,9 |
| **Denmark** | 11.698 | +0,9 | +2,9 | +3,8 | 2.702 | -13,0 | -31,6 |  | 11.528 | -0,3 | -1,4 | -1,7 | 1.965 | -27,3 | -33,6 |
| **Germany** | 57.590 | +3,9 | -5,3 | -1,6 | 20.618 | -6,7 | -11,8 |  | 59.357 | -2,6 | +5,8 | +3,1 | 19.358 | -6,1 | -10,8 |
| **Estonia** | 995 | +0,0 | -0,2 | -0,2 | 257 | -8,9 | +9,1 |  | 1.088 | -6,7 | +17,2 | +9,3 | 264 | +2,9 | -0,2 |
| **Ireland** | 8.908 | +1,5 | +3,1 | +4,6 | 3.228 | +13,1 | +11,9 |  | 10.046 | +2,0 | +10,5 | +12,8 | 3.961 | +22,7 | +18,0 |
| **Greece** | 11.868 | +0,9 | -0,6 | +0,2 | 6.235 | +1,7 | +9,5 |  | 11.858 | -7,4 | +7,9 | -0,1 | 6.004 | -3,7 | -3,3 |
| **Spain** | 52.345 | +2,6 | -1,5 | +1,1 | 28.570 | +2,2 | +9,2 |  | 56.427 | +0,2 | +7,6 | +7,8 | 29.653 | +3,8 | -5,2 |
| **France** | 76.322 | -2,9 | +1,0 | -1,9 | 31.139 | -1,8 | -5,0 |  | 81.591 | -1,6 | +8,6 | +6,9 | 35.101 | +12,7 | +16,3 |
| **Croatia** | 2.422 | +1,1 | +0,5 | +1,6 | 1.153 | +1,6 | +9,2 |  | 2.621 | -6,0 | +15,0 | +8,1 | 1.222 | +6,0 | +0,7 |
| **Italy** | 56.864 | -2,5 | +0,2 | -2,3 | 31.932 | -4,1 | -7,0 |  | 60.019 | -0,1 | +5,6 | +5,6 | 32.669 | +2,3 | -1,6 |
| **Cyprus** | 758 | +3,7 | -0,8 | +2,8 | 353 | +3,7 | +4,1 |  | 757 | +1,1 | -1,2 | -0,1 | 352 | -0,2 | -1,7 |
| **Latvia** | 1.678 | +2,7 | +0,3 | +3,1 | 639 | +15,2 | +15,3 |  | 1.760 | -7,1 | +12,9 | +4,9 | 673 | +5,3 | +4,8 |
| **Lithuania** | 3.486 | +10,3 | -1,5 | +8,6 | 1.500 | +21,7 | +38,2 |  | 3.685 | -5,5 | +11,8 | +5,7 | 1.474 | -1,7 | -4,2 |
| **Luxembourg** | 440 | +1,1 | -1,7 | -0,6 | 126 | +0,4 | -6,1 |  | 498 | +7,5 | +5,4 | +13,3 | 129 | +2,2 | -5,3 |
| **Hungary** | 8.398 | -2,4 | +7,2 | +4,6 | 3.419 | -3,2 | +6,9 |  | 9.423 | -2,1 | +17,0 | +14,5 | 3.804 | +11,3 | +9,4 |
| **Malta** | 121 | -2,7 | -1,9 | -4,5 | 53 | -12,9 | -15,0 |  | 125 | -2,0 | +5,8 | +3,7 | 52 | -2,0 | -3,3 |
| **Netherlands** | 28.223 | -0,3 | -2,9 | -3,1 | 10.536 | -6,4 | -6,1 |  | 30.311 | -0,4 | +7,8 | +7,4 | 10.790 | +2,4 | -2,8 |
| **Austria** | 7.659 | +2,2 | +0,5 | +2,6 | 3.095 | +1,1 | +1,5 |  | 8.451 | +0,4 | +9,9 | +10,3 | 3.437 | +11,0 | +3,3 |
| **Poland** | 26.406 | +8,0 | -2,4 | +5,3 | 10.305 | +6,9 | +22,1 |  | 27.508 | -0,7 | +7,8 | +7,0 | 8.473 | -17,8 | -18,9 |
| **Portugal** | 8.331 | +0,1 | +0,2 | +0,3 | 3.265 | -1,5 | -0,1 |  | 9.224 | +5,8 | +4,6 | +10,7 | 3.498 | +7,1 | +9,6 |
| **Romania** | 16.824 | -15,4 | +7,0 | -9,5 | 8.275 | -5,9 | -8,3 |  | 21.420 | +16,9 | +10,8 | +29,5 | 10.204 | +23,3 | +28,0 |
| **Slovenia** | 1.356 | +5,5 | -3,0 | +2,4 | 581 | +3,7 | +7,3 |  | 1.329 | -12,0 | +11,4 | -2,0 | 475 | -18,2 | -20,2 |
| **Slovakia** | 2.348 | +3,4 | +0,5 | +3,8 | 642 | +23,2 | +9,5 |  | 2.541 | +0,3 | +7,9 | +8,2 | 734 | +14,4 | +3,8 |
| **Finland** | 4.537 | -1,6 | -3,3 | -4,9 | 1.269 | -6,9 | -6,1 |  | 4.460 | -6,2 | +4,8 | -1,7 | 1.075 | -15,3 | -13,7 |
| **Sweden** | 6.172 | -1,5 | -11,3 | +0,9 | 1.747 | +10,0 | -2,0 |  | 6.709 | -4,0 | +9,5 | +5,2 | 1.838 | +5,2 | -0,1 |

**FIGURE 13. PRODUCTION AND VALUE ADDED OF EU27 AGRICULTURE, CLASSIFICATION OF THE MAIN MEMBER STATES**. Year 2021. current values in millions of euros

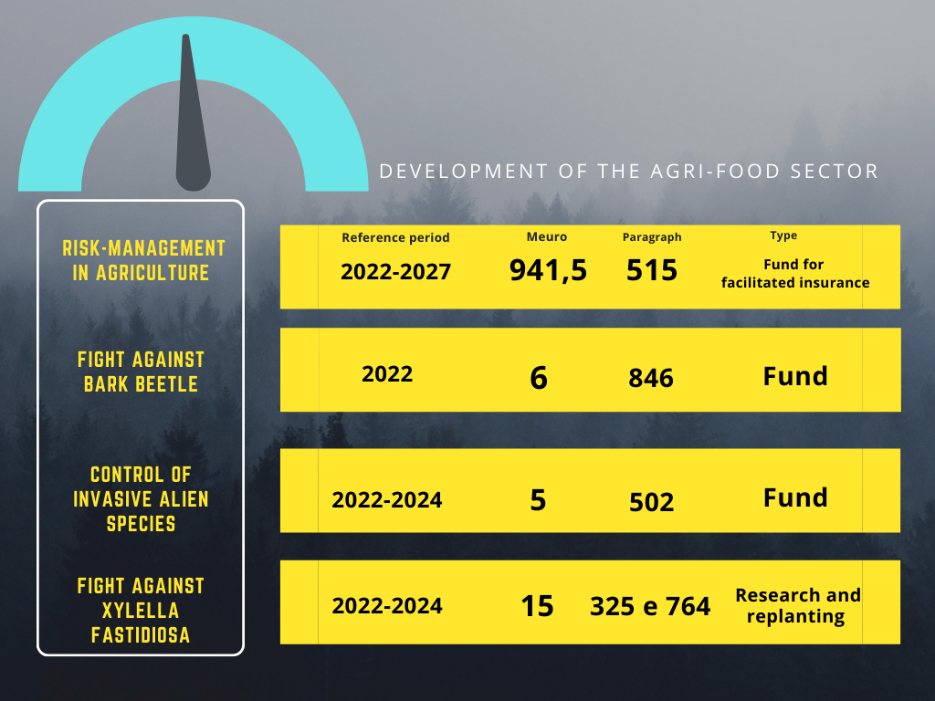
**FIGURE 14. INDICATOR A FOR EU27 AND MAIN EUROPEAN COUNTRIES.** Year 2021, annual percentage changes

**The 2022 Budget Law and the expected measures envisaged**

**Interventions to support and relaunch the agricultural sector**

The financial interventions envisaged by the budget law - Law 234/2021 – do provide for an allocation of about two billion euros and have been reclassified, as shown here below, into interventions for the risk management (including crop-protection), interventions for the development of the agri-food chain and fisheries, interventions in support of investments and interventions not otherwise classifiable. There are, then, fiscal and tributary benefits, contributory and social security benefits in addition to intersectoral interventions that encompass also the primary sector.

**Risk management and crop-protection**



The most relevant financial measures concern risk management in agriculture, i.e.:

* the establishment of the **national mutual fund** to cover catastrophic risks to agricultural production;
* **subsidized insurance**.

This measure envisages also the possibility to maintain, for a maximum period of 3 years and under certain conditions, the **farmer status**.

**FIGURE 15. FARMS AND INSURED VALUES BY MAIN INSURED PRODUCTS AND BY REGION**Year 2020

Source: elaboration on ISMEA data

Among the interventions related to crop**- protection** we point out:

* **Bark beetle insect**: establishment of a Fund aimed at adopting exceptional measures for containing the damage caused by the spread of the insect that attacks mostly firs and pines, but that can also damage fruit trees, such as apple trees and vines;
* Establishment, at the Ministry of Ecological Transition, of a Fund for the **control of invasive alien species**;
* The phenomenon of the **bacterium of Xylella fastidiosa** has strongly affected the olive-oil sector of Apulia, especially in Salento. Besides the measures already launched in 2013, many**research activities** conducted by the CNR have been financed with the aim of limiting the spread of the harmful organism and it has been introduced the **replanting** of plants recognized as tolerant or resistant to Xylella.
* In addition to these measures there is also the **preservation of the quality of the national cork** and the monitoring of the *Coraebus undatus*, through heat treatment.

**Development of agri-food and fisheries supply chains**

Immagine che contiene tavolo

Descrizione generata automaticamente

Among the interventions dedicated to the development of the agri-food and fisheries supply chains we find newly established interventions and other-ones of extension of previous funding. In the first case we quote for reference:

**the Fund for the support of the Italian food and wine sector** aimed at promoting and supporting the Italian catering and pastry excellences and enhancing the Italian agri-food and wine heritage, also through interventions that encourage the **enhancement** of **products with designation of origin and geographical** indication as well as the Italian agri-food excellences. For this purpose, two funds have been set up at MiPAAF named, respectively:

* + current-account fund for the **support of the excellences of the Italian gastronomy and agri-food sector**;
  + capital fund **for the support of the excellences of the Italian gastronomy and agri-food sector**.

At the same time, in order to promote the ecological transition in the catering sector, MiPAAF has set up a fund, with an allocation of one million euros for the year 2022.

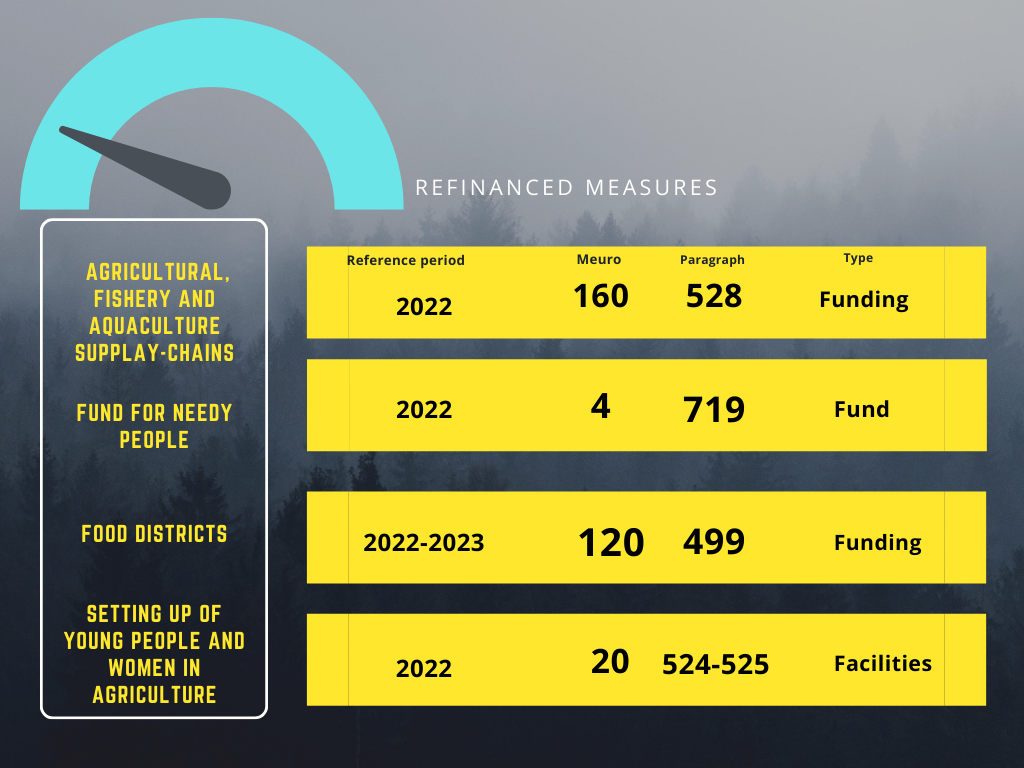
Regarding the **labelling of products,** paragraph 842 envisages a contribution for the promotion of local territories, in favor of PDO, PGI and organic wine producers who invest in digital labelling systems, allowing through a QR-code affixed to the labels, a dynamic communication from the producer to the consumer, conveying the latter on institutional sites and web pages dedicated to cultural, tourist and rural promotion of the local territories.

Interventions to support **beekeeping supply chains,** and to promote the competitive development of the nut sector **and minor supply chains** by encouraging research and modernization of forestry management techniques, favoring enhancement programs and supporting the refinancing of sectoral plans.

MiPAAF has also established the **Fund for the development of organic aromatic and medicinal plants crops**, to promote the cultivation of organic aromatic and medicinal plants on the national territory.

Lastly, the **Fund for the international enhancement of intangible agri-food and agro-silvo-pastoral heritage**, intended to support the agri-food and agro-silvo-pastoral traditions and practices declared by UNESCO as an intangible heritage of humanity.

Among the interventions that receive an extension of funding, we point out:



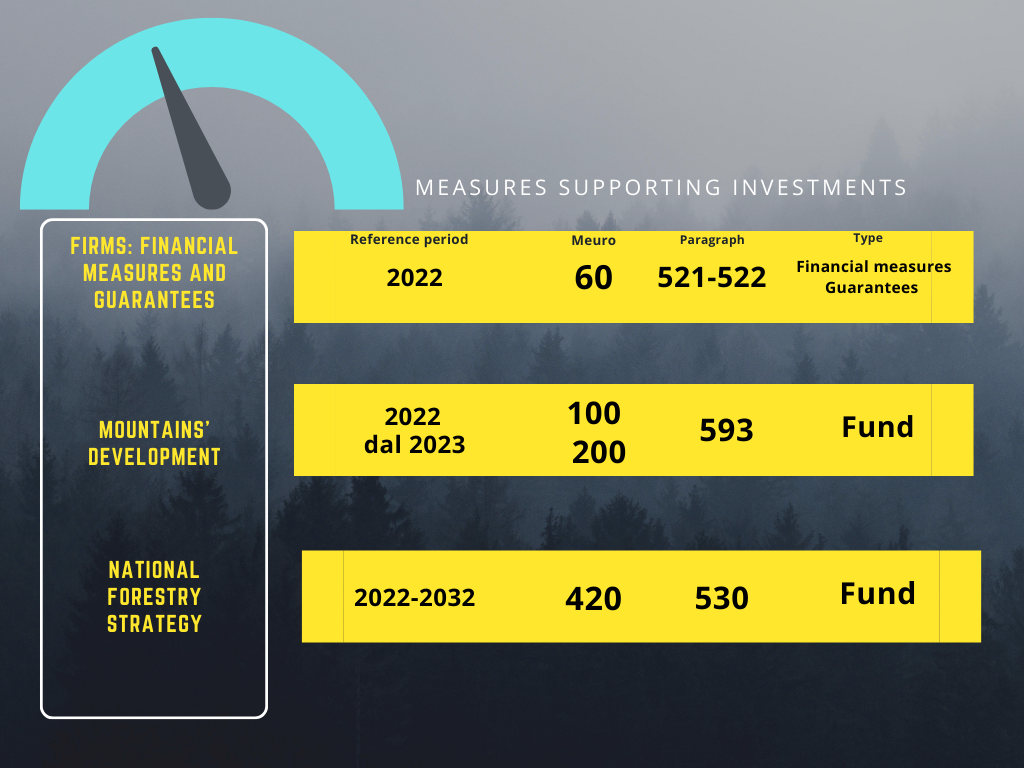
* **Agricultural, fisheries and aquaculture** supply-chains: it has been envisaged an increase in the financial allocation of the Fund dedicated to the development and support of these sectors and for the meat supply-chain deriving from chickens, turkeys, domestic rabbits, hares and other live animals intended for human consumption, as well as in-shell, fresh and preserved eggs of birds and eggs in general;
* **Distribution of food to the most needy people**, with a Fund set up at Agea that will care of the distribution of food aid;
* **Take over of young people and women in agriculture**, to promote new entrepreneurship and generational renewal in agriculture (Legislative Decree 185/2000 – Title I – Chapter III), while 5 Meuro are intended to increase the Revolving Fund for the development of entrepreneurship in agriculture and generational renewal in agricultural enterprises with prevalent or total female participation;
* **The Food Districts,** whose recognition passes through the Regions and the Autonomous Provinces and ends up with the enrollment in a special National Register, managed by the MiPAAF. The territory that is recognized as such obtains advantages in terms of synergies and networks, with the possibility of obtaining financing and acquiring greater *appeal* also in terms of tourism.

The Food Districts present in Italy are currently 106 and are characterized by a strong concentration in a small number of regional realities.

**FIGURE 16. FOOD DISTRICTS IN ITALY**

Source: Data from the Observatory on Food Districts

**Measures to support investment**



The intervention provides **for companies** 50 Meuro destined to ISMEA’s activities and dedicated to **financial interventions** in economically and financially healthy companies operating in the production, processing and marketing of agricultural, fisheries and aquaculture products, subjected to the EU's common agricultural and fisheries policy, as well as to the goods produced within the so-called related agricultural activities; for the year 2022, 10 Meuro are intended for the granting of **guarantees** provided by ISMEA, against short, medium and long-term loans for companies operating in the agricultural, agri-food and fisheries sectors;

It is expected the establishment of a Fund for the **Development of mountains** at the Presidency of the Council of Ministers – Department for Regional Affairs and Autonomies, which serves to finance interventions for the protection and promotion of environmental resources, through initiatives to protect and enhance the potential of the mountain habitat; socio-economic measures for the populations living in the territories involved; information and communication activities on mountain issues but also measures for the development of agro-silvo-pastoral activities, besides initiatives to reduce the serious phenomenon of depopulation.

Finally, the implementation of the **National Forest Strategy** continues through the establishment of a multiannual fund. The general objectives of the SNF are three and concern the sustainable management and multifunctional role of forests, the efficiency in the use of forest resources for a sustainable development of economies in inland and urban rural areas of the country and the global responsibility and knowledge of forests through monitoring, research and training actions.

The measures concerning further types of intervention concern in particular:

**TABLE 8. OTHER MEASURES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of intervention** | **Reference period** | **Appropriation**  **Meuro** | **Art. 1**  **Comma** | **Typology** |
| Equestrian plants | 2022-2023 | 7 | 870- 871 | Bottom |
| Fur animals | 2022-2023 | 6 | 982-984 | Bottom |
| Prices of agricultural products | 2023 | 0,5 | 526 | Bottom |
| Port Authorities | from 2022 | 4 | 529 | Expense |
| ICQRF | 2022 | 2 | 989 | Indemnity |
| Enhancement of research in the agri-food sector | 2022 | 30,5 | 760 | Financing |

**Tax, contributory and social security benefits**

In the budget law, specific rules extend, restructure, and modify the discipline of tax, social securities, and contribution benefits for the sector.

**TABLE 9. TAX, CONTRIBUTORY AND SOCIAL SECURIT BENEFITS IN THE BUDGET LAW**

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of intervention** | **Reference period** | **Appropriation** | **Art. 1 finanziariaComma** |
| **Meuro** |
| **Tax** | | | |
| Craft breweries |  | reduction of excise duties | 985- 987 |
| Green bonus | 2022-24 |  | 38 |
| IRPEF exemption of dominical and agrarian income | 2023 | 237 | 25 |
| Support for animal husbandry: cattle and pigs | 2022 | 74,5 | 527 |
| **Contribution and social security benefits** | | | |
| Three-year fisheries plan | 2022-23 | 8 | Financing |
| National Fisheries Solidarity Fund | 2022-23 | 8 | Bottom |
| Fishing stop |  | 19 | All-inclusive allowance |  |
| Wage subsidies to agricultural farmers | from 2022 | 12 | 217-218 |  |
| 122 and 130 |  |
| Social Fund for Employment and Training |  |
|  |
| Extension of tax-relief on young direct farmers or professional farmers | 2022-24 | 54 | 520 |  |
|  |

**Tax benefits**

The regulation of excise duty on beer undergoes some changes by envisaging a reduction of 16 million euros, for the year 2022, for all craft breweries that produce less than 60,000 hectoliters with the aim to stimulate the production recovery and the development of the supply chain connected to the brewing sector, in particular:

* + for artisanal microbreweries (that is, those with an annual production not exceeding 10 thousand hectoliters), the reduction in excise duty arises from 40 to 50%;
  + for craft breweries with an annual production exceeding 10 thousand hectoliters and lower than 60 thousand hectoliters, the excise duty is reduced by 30 or 20% depending on whether the production does exceed or not 30 thousand hectoliters;

the measure of the general excise duty is set at 2.94 euros per hectolitre and degree-Plato (from 1 January 2023, it returns to 2.99 euros).

Some measures have been extended, such as: the so-called **green bonus,** the tax relief dealing with the green arrangement of uncovered areas of private properties for residential use; **the IRPEF exemption of dominical and agrarian** incomes relating to direct farmers and professional agricultural entrepreneurs enrolled in the agricultural pension scheme; support measures to **animal husbandry** aimed at confirming the percentages of VAT compensation in the livestock sector for the sale of live animals of the **bovine and porcine**  species raised to 9.5% for 2021.

# **Contribution and social security benefits**

The fisheries sector has envisaged through the  **Solidarity** **Fund**, measures to prevent damage to production and fisheries structures as a result of exceptional natural disasters, adverse weather conditions; **the fishing stoppage** has been renewed, as well as the all-inclusive allowance for each worker employed by a sea fishing undertaking and the working members of small-scale fishing cooperatives in the event of suspension from work resulting from compulsory and non-compulsory temporary cessation measures; the **Cassa Integrazione Salariale Operai Agricole** (CISOA) (wage subsidy) to fishermen has been extended, as a structural social shock absorber.

**The decontribution** has been extended, that is the exemption from the payment of 100% of the **contribution credit** **to** guarantee new enrollments in the agricultural social security management as direct farmers or professional agricultural entrepreneurs, aged less than 40 f.

THE HORIZONTAL INTERVENTIONS OF THE BUDGET LAW THAT AFFECT THE PRIMARY SECTOR

The Budget Law also provides for a series of horizontal measures, aimed to the businesses development, of interest also for the agricultural and food sector. Especially:

|  |  |  |  |
| --- | --- | --- | --- |
| **HORIZONTAL INTERVENTIONS** | | | |
| **Type of intervention** | **Reference period** | **Appropriation** | **Art. 1** |
| **Meuro** | **Comma** |
| Sugar and plastic tax (L 169/2019) | postponement to 2023 | - | 12 |
| SME Guarantee Fund | from 2022 | 3 | 1058 and seq. |
|  |
| New Sabatini | 2022-27 | 660 | 47-48 |
| Internationalization of companies |  | 3.000 | 49 |
| ·     *Revolving fund for Italian companies* | 2022-26 | 7,5 |  |
| ·     *Integrated Promotion Fund* | 2022-26 | 750 |  |
| Tax Credit - Transition 4.0 | 2023-25 |  | 1051-1063 |
| Mezzogiorno tax credit | 2022 |  | 176 |

The **sugar and plastic tax** has been delayed by 1 year.

The **extraordinary intervention** operation **of the** **SME Guarantee Fund** to support the liquidity of companies affected by the epidemiological emergency from COVID has been extended.

The so-called "**Nuova Sabatini**" has been refinanced the aim of encouraging companies that invest in new capital goods, both ordinary and attributable to the category "technology 4.0".

The endowment of the Revolving Fund in favor of Italian companies operating on foreign markets and the endowment of the Fund for integrated promotion have been increased, in order to promote **the internationalization of companies**.

The **tax credit** for investments in capital goods "**transition 4.0**" and the tax credit for investments in **research and development**, in **ecological transition**, in **technological innovation 4.0** and in other innovative activities have been extended.

The tax credits for research and development activities, technological innovation and design and aesthetic ideation activities, other innovative activities for ecological transition objectives or digital innovation 4.0 have also been extended and remodulated. Finally, the Mezzogiorno Tax Credit for the purchase, also through leasing, of goods (machineries, plants and equipment) instrumental to business activity and part of the company's production cycle and intended for production facilities located in the Southern regions (Campania, Apulia, Basilicata, Calabria, Sicily, Molise, Sardinia and Abruzzo).

**NRRP and agriculture**

The National Recovery and Resilience Plans (NRRPs) originated as a common response to the pandemic and the economic and social effects brought about by the health crisis due to COVID-19. In fact, the gravity of the situation had quickly brought to light the need to strengthen the existing EU framework supporting Member States, leading to the introduction of a new financial instrument: the Next Generation EU (NGEU).

The Next Generation EU has an allocation of €750 billion at 2018 prices (including €390 billion as grants and €360 billion as loans); the bulk of these resources, totaling €672.5 billion (including €312.5 billion as grants and €360 billion as low-interest loans), are earmarked for the Recovery and Resilience Facility to cope with the crisis due to COVID-19.

The different impact on Member States depended on the different spread and intensity of the health crisis in national contexts, macroeconomic soundness and structural characteristics of each country.

Each country received the highest endowment of grants, determined by predefined objective criteria, taking into account population, GDP per capita and unemployment. This suggests that a higher allocation of funds has been granted to those countries that have suffered most severely from the pandemic and those with low per capita income and high unemployment rate

Based on these parameters, Italy is the first beneficiary in absolute value, receiving a total amount of 191.5 billion euros, to be used in the 2021-2026 period. In addition, on April 15, 2021, the Council of Ministers supplemented this endowment with the establishment of a complementary National Fund for additional 30.6 billion euros (Decree Law 59 of 2021), thus reaching a total combined funds of 222.1 billion euros with the aim of achieving the priorities and objectives of the NRRP.

The profound change in the international situation, brought about by the conflict in Ukraine, could lead to an increased focus on food and energy security issues. In such a perspective, and with respect to the agricultural sector, Member States will be called upon to orient their planning documents (and in particular their CAP Strategic Plan) to take advantage of all opportunities to strengthen the resilience of the EU agricultural sector, reduce its dependence on synthetic fertilizers, and increase renewable energy production without compromising food production and transform its production capacity in line with more sustainable production methods.

At the same time, interventions are being activated at the EU level concerning, on the one hand, crisis measures – in particular in the most affected markets – and, on the other hand, the use of set-aside land to increase the endowment of agricultural land to be put into production.

**Objectives and structure of the NRRP**

In preparing its own NRRP, each member State allocated the available resources for reforms and investments, taking into account EU priorities, country-specific recommendations (the Country-specific recommendations), and the so-called ring-fencing for twin transitions (i.e., the obligation to allocate at least 37 percent and 20 percent of resources to the green and digital transition, respectively), consistent with the objectives of the European Green Deal strategy (European Commission, 2019).

The Italian NRRP is developed around six Missions, i.e., structural thematic areas of intervention, subdivided into Components, which represent areas in which to aggregate investment projects and reforms, aimed at achieving the objectives defined in the country's strategy.

The largest share of resources is allocated to Mission 2 - Green Revolution and Ecological Transition (31 percent), followed by Mission 1 - Digitization, Competitive Innovation, Culture and Tourism (21 percent); Mission 4 - Education and Research receives 16 percent, while Mission 3 - Infrastructure for Sustainable Mobility stands at 13 percent; Mission 5 - Social Inclusion benefits from 10 percent of resources, and finally Mission 6 - Health Care gets 8 percent.

**TABLE 10. FINANCIAL AMOUNTS OF THE MISSIONS AND COMPONENTS OF THE PNRR**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Mission** | **bn €** | **%** |  | **Component** | **bn €** |
|  | **DIGITALIZATION, INNOVATION, COMPETITIVENESS, CULTURE AND TOURISM** | **40,33** | **21%** | **C1** | **DIGITIZATION, INNOVATION AND SECURITY IN THE PA** | **9,75** |
| **C2** | **DIGITALIZATION, INNOVATION AND COMPETITIVENESS IN THE PRODUCTION SYSTEM** | **23,90** |
| **C3** | **TOURISM AND CULTURE 4.0** | **6,68** |
|  | **GREEN REVOLUTION AND ECOLOGICAL TRANSITION** | **59,47** | **31%** | **C1** | **CIRCULAR ECONOMY AND SUSTAINABLE AGRICULTURE** | **5,27** |
| **C2** | **RENEWABLE ENERGY, HYDROGEN, GRID AND SUSTAINABLE MOBILITY** | **23,78** |
| **C3** | **ENERGY EFFICIENCY AND BUILDING UPGRADING** | **15,36** |
| **C4** | **PROTECTION OF LAND AND WATER RESOURCE** | **15,06** |
|  | **INFRASTRUCTURE FOR SUSTAINABLE MOBILITY** | **25,40** | **13%** | **C1** | **INVESTMENT IN THE RAILWAY NETWORK** | **24,77** |
| **C2** | **INTERMODALITY AND INTEGRATED LOGISTICS** | **0,63** |
|  | **EDUCATION AND RESEARCH** | **30,87** | **16%** | **C1** | **STRENGTHENING THE SUPPLY OF EDUCATION SERVICES: FROM KINDERGARTENS TO UNIVERSITIES** | **19,43** |
| **C2** | **FROM RESEARCH TO ENTERPRISE** | **11,44** |
|  | **INCLUSION AND COHESION** | **19,81** | **10%** | **C1** | **EMPLOYMENT POLICIES** | **6,66** |
| **C2** | **SOCIAL INFRASTRUCTURE, FAMILIES, COMMUNITIES AND THE THIRD SECTOR** | **11,17** |
| **C3** | **SPECIAL INTERVENTIONS FOR TERRITORIAL COHESION** | **1,98** |
|  | **HEALTH** | **15,62** | **8%** | **C1** | **NEIGHBORHOOD NETWORKS, FACILITIES AND TELEMEDICINE FOR COMMUNITY HEALTH CARE** | **7,00** |
| **C2** | **INNOVATION, RESEARCH AND DIGITIZATION OF THE NATIONAL HEALTH SERVICE** | **8,62** |
|  | **Total** | **191,5** |  |  | **16** | **191,5** |

Source: elaborations on NRRP, 2021

The National Plans are called upon to contribute to the twin transitions, ensuring an allocation of resources consistent with the planned ring-fencing. In the Italian NRDP, to the green transition is allocated 37 percent of the NRDP resources, concentrated particularly in Mission 2 (with 46 million, or nearly 80 percent of it) and Mission 3 (with 21 million, or more than 80 percent of it). Digital transition, on the other hand, receives resources for about 23 percent of the total allocation, particularly through Mission 1 (with 28 million, or 70 percent of it) and Mission 4 (with 7.5 million, or 30 percent of it).

**FIGURE 17. BUDGET ALLOCATION AND CONTRIBUTION TO TWIN TRANSITIONS (CLIMATE AND DIGITAL) BY MISSION**

Fonte: elaborazione su dati PNRR

Of particular interest to the agribusiness system is Mission 2 - "Green Revolution and Ecological Transition" (M2) with a total budget of 59.47 billion, which reaches 68.6 billion, including 9.1 billion from the National Supplementary Fund.

**Projects intended for the primary sector: proposing entity Mipaaf**

The NRRP finances projects directly managed by the Ministry of Agriculture, Food and Forestry (Mipaaf) that contribute to the economic growth of the primary sector, with consequent impacts on the entire national economic system. The total budget of projects dedicated to the sector corresponds to 4.88 billion euros, which complements the resources for the CAP 2021-2027. 3.6 billion euros of these funds are community resources from the Recovery and Resilience Facility, while 1.2 billion euros are from the Supplementary Fund.

There is a total of five interventions under Mipaaf, although these do not exhaust all the Plan's opportunities for the primary sector. These projects fall under Mission 2- "Green Revolution and Ecological Transition" and specifically under M2C1 - "Circular Economy and Sustainable Agriculture" and M2C4 "Land and Water Resource Protection." In addition to these are other interventions, of particular relevance to the agricultural sector and rural areas, presented jointly with other administrations or directly supported, these are in particular: the ultra-wideband project in areas of market failure, enhancement of satellite monitoring for environmental purposes and land protection, development of biomethane, agri-voltaic.

**TABLE 11. THE AGRICULTURAL PROJECTS OF THE PNRR**

|  |  |  |
| --- | --- | --- |
| **INVESTMENTS** | | **mld** |
| M2C1 I.2.1 | Logistics development for agribusiness, fisheries and aquaculture, forestry, floriculture and nursery sectors | 0,80 |
| M2C1 I.2.2 | Agrisolar Park | 1,50 |
| M2C1 I.2.3 | Innovation and mechanization in agriculture and food sector | 0,50 |
| M2C4 I.4.3 \*\* | Investments in irrigated agrosystem resilience for better water resource management | 0,88 |
| \* | Supply chain and district contracts for the agribusiness, fisheries and aquaculture, forestry, and floriculture sectors | 1,20 |

\*Funding from supplementary fund.

\*\* of which 360 mln relates to projects already underway, supported with national funds

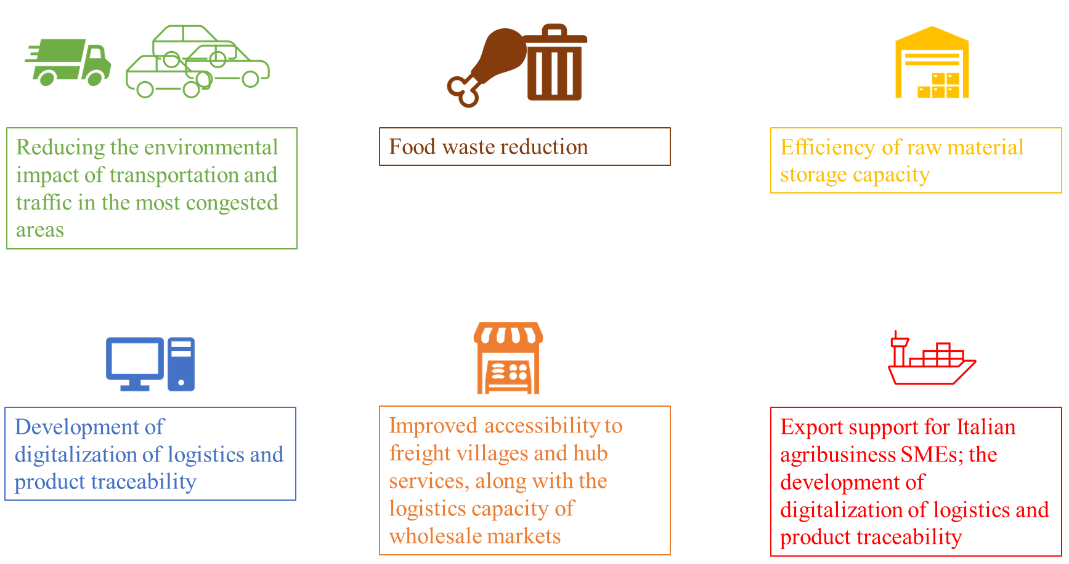
Source: elaborations on NRRP, 2021

**Mission 2 Component 1 - Investment 2.1: Logistics development for agribusiness, fisheries and aquaculture, forestry, floriculture, nursery sectors**

Our country lags far behind in infrastructure; in fact, it has positioned 18th in the World Economic Forum's (2019) ranking of the "infrastructure" indicator.

The proposed investment aims to enhance the logistics of the agri-food sector (including floriculture, fisheries and aquaculture), which is characterized by strong specificities throughout the supply chain, attributable to several aspects, such as: nature of products (fresh, dried and frozen); complexity of production and food processing chains upstream; growing globalization and internationalization of markets, both supply and outlet, with increasing distances between production basins and consumption areas; great articulation of sales channels, which for agri-food products extend from street vendors to e-commerce, passing through large-scale distribution and Ho.Re.Ca.

**FIGURE 18: THE OBJECTIVES OF INVESTMENT 2.1**



Source: elaborations on NRRP, 2021

The budget for the logistics-related investment is 800 million euros in grants. Overall, 27 percent of the investment is aimed at digital transition and 32.2 percent at green transition.

**Timeline:** thereare two key deadlines for completing the investment: the issuance of the call for the implementation of the logistics plan, by March 2022, and the publication of the final ranking of interventions receiving support, by December 2022. Implementation of the interventions is set for the first half of 2026.

**Final target:** to be achieved by 2026, quantifies, into 48 units, the logistics development interventions for the agribusiness, fisheries and aquaculture, forestry, floriculture and nursery sectors.

In December 2021, Mipaaf launched a technical consultation addressed to potential beneficiaries (individual and associated companies, producer organizations, cooperatives and consortia, service and wholesale market management companies, transport operators, port authorities and public administrations) involved in the investment construction process. The consultation had two purposes: inform the sector about the logistics plan for the development of a sustainable agribusiness supply chain and collect comments and proposals from stakeholders for the construction of more effective implementation arrangements.

**Mission 2 Component 1 - investment 2.2: Agrisolar Park**

The Agrisolar Park aims to boost renewable energy production through rooftop upgrades of buildings in productive use in the agricultural, livestock and agro-industrial sectors, thereby increasing the sustainability, resilience, green transition and energy efficiency of the sector.

Indirectly, the project aims to contribute to the achievement of the objectives related to animal welfare through the modernization of facilities. To this end, the measure promotes the installation of photovoltaic panels, taking advantage of the roofs of agricultural, livestock and agro-industrial production buildings, through the replacement of roofs (with the removal, where present, of eternit/asbestos on the roofs), improved insulation and thermal insulation.

The measure therefore allows for the creation of a network of photovoltaic installations, spread throughout the territory, without land consumption, contributing to the improvement of the energy efficiency of buildings and the transition to self-consumption of energy from renewable sources, increasing the competitiveness of farms and reducing their energy supply costs.

The financial envelope is (amounts to) 1.5 billion euros. The measure contributes 70% of the entire allocation exclusively to green transition.

**Timing**: from the implementation point of view, the timeline of the intervention includes the publication of the call for investment program selection, by December 2021 (milestone). The investment foresees financial progress (target) with the achievement of 30% of resources, by December 2022, 50%, by December 2023, and 100%, by December 2024.

**Final target:** the intervention aims to cover, by 2026, a total area of 4.3 million sqms with an installed capacity of about 0.375 GW, while at the same time realizing a redevelopment of the production facilities targeted

In December 2021, Mipaaf launched a technical consultation aimed at potential beneficiaries Professional Agricultural Entrepreneurs (IAPs), Direct Farmers (CDs) registered with the Agricultural Social Security, Agro-industrial Enterprises (ATECO code). The consultation had two purposes: inform the sector about the logistics plan for the development of a sustainable agribusiness supply chain and collect comments and proposals from stakeholders for the construction of more effective implementation arrangements.

**Mission 2 Component 1 - Investment 2.3: Innovation and mechanization in the agriculture and food sector.**

Our country has a significant need for next-generation technologies, given the obvious obsolescence of the current agricultural equipment fleet, and also in accordance with the content of the *Farm to Fork* strategy*,* in which it is expressly stated that "*farmers must transform their production methods more rapidly and make the best use of nature-based, technology, digital and spatial solutions to deliver better climate and environmental outcomes, increase climate resilience and reduce and optimize input use*."

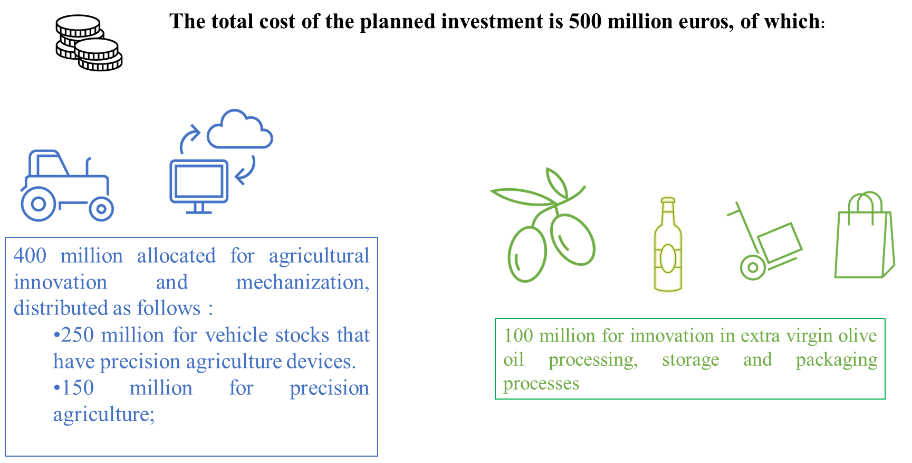
In 2000, there was a fleet of 1,643,000 cars on the road. In twenty years, the fleet has increased by about 400,000 units based on registration data. Therefore, as of 2020, the car fleet is estimated at about 2,050,000 pieces. Of these, 80 percent are pre-Stage 1 machines.

The investments supported through the intervention concern, in particular: agricultural innovation and mechanization (*precision farming*) and innovation in extra virgin olive oil processing, storage and packaging processes.

The intervention on mechanization aims to support the introduction of innovative and better performing machinery in production processes, implementing the Guidelines for the *development of precision agriculture in Italy* (Mipaaf, 2017). Therefore, the aim is to reduce greenhouse gas (GHG) emissions. In addition to this, the introduction of precision farming techniques will result in a reduction in pesticide use estimated at 25 to 40 percent.

The second intervention, from a circular economy perspective, consists of a specific action aimed at modernizing the processing, storage and packaging of extra virgin olive oil, with the goal of improving the sustainability of the production process, contributing to the competitiveness of an important sector for the Italian agri-food industry, which has suffered a significant decline in recent years.

**FIGURE 19. FINANCIAL BREAKDOWN OF INVESTMENT BY TYPE OF INTERVENTION**



Source: elaborations on NRRP, 2021

The recipients of the investment will be farms, producer organizations and consortia.

**Timing**: from the implementation point of view, the investment includes two milestones and two intermediate targets. Specifically, there are two calls for proposals (milestones): the first is addressed to the olive sector (by the first quarter of 2022), while the second call is aimed at mechanization (by the first quarter of 2023). In terms of quantity (target), the first stage aims to target grants to at least 10,000 farms by 2024. The second stage aims to increase the number of beneficiaries by another 5,000.

**Final target**: the intervention aims to reach the 15,000 beneficiary threshold by the end of 2026.

**Mission 2 Component 4-investment 4.3: Investment in agro-irrigation system resilience for better management of water resources**

Increasing water efficiency in all sectors to address water scarcity is among the sustainable development goals of the 2030 Agenda. Climate change has a major impact on the availability of water resources, especially in the Mediterranean area and, therefore, in Italy, where irrigation is a necessary practice for agricultural production and a fundamental condition for competitive agriculture. Drought events are occurring with increasing frequency even in areas of the country not historically subject to water scarcity problems.

The measure is aimed at irrigation entities and finances - for 880 million euros, of which 520 million reserved for new projects and 360 million to cover the financing of existing projects with national funds - interventions for an efficient and sustainable use of water in agriculture, with investments having the objective of increasing the resilience of the irrigated agrosystem to extreme climatic events (with particular regard to drought events), improving the management of the water resource, reducing losses and promoting the metering and monitoring of uses on collective networks (through the installation of meters and remote control systems). Metering and monitoring are a fundamental prerequisite for quantifying the water actually used and for averting illicit uses of water in rural areas.

Thus, the measure concerns interventions that can be implemented in the short to medium term to complement and accompany the efficiency and safety of primary water infrastructures (large additives, dams and reservoirs, large derivations) promoted by other Central Administrations within the same component of the PNRR, in order to encourage the best use of the resources made available by these major works.

With regard to the implementation of the measure (Zucaro et al., 2021), in accordance with the timeline and related *milestones*, eligibility and selection criteria were published in June 2021 on the basis of which eligible and ineligible projects for funding and related merit score were identified through CREA's DANIA database by September 2021. Finally, in November 2021, the implementation plan for initiating the arrangements for the verification of projects applying for funding was approved.

The measure contributes 40% to the climate tag and 100% to the environmental tag.

**Timing:** from animplementation point of view, the next planned milestones are: issuance of funding decrees third quarter 2022 (M2C4-00-ITA-38), and awarding of all public contracts related to the funded interventions by December 2023 (M2C4-33). The latter milestone is in Annex I of the Operational Arrangements.

**Final Target**: The intervention aims to increase the percentage of drawdown sources with flow > 100 l/s equipped with meters from the current 0% to 40% by T1 2026 (M2C4-34a), and to increase the area switching to more efficient management of the irrigation resource as a result of the interventions from 0% to at least 29 % by T1 2026 (M2C4-35a).

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# Supplementary fund and measures for agribusiness

The NRRP Supplementary Fund has included supply chain and district contracts as a measure for sustainable development of the agrifood sector. The intervention aims to strengthen the tool of supply chain and district contracts for the agribusiness, forestry, fisheries and aquaculture and floriculture sectors through integrated investment programs throughout the country.

The final beneficiaries of the measure are enterprises that directly contribute to the production, harvesting, processing and marketing of agricultural products (agri-food, fish, forestry and floriculture) and enterprises that provide services and means of production (of first/second processing). The public resources allocated to this intervention amount to 1.2 billion euros, of which 25 percent is allocated exclusively to Italian organic production.

The Administration initiated the implementation of the measure through two procedures:

1) the scrolling of the ranking list of projects already present under the Fourth Call 2015-2020 "Supply Chain and District Contracts" in the agribusiness sector;

2) The issuance of a new notice for the agribusiness sector.

With regard to the first procedure, the Ministry is currently in the process of managing the 4th call with FSC (Fund for Development and Cohesion) funds. The scrolling of the ranking list of existing projects should allow for an immediate impact of the measure on the sector, and the new projects will have to ensure a green transition of the affected supply chains.

The second procedure concerns the issuance of a new notice for the agribusiness sector. In October 2021, the draft decree on the Fifth Public Notice on the characteristics, modalities and forms for applications for access to supply chain and district contracts was prepared. The draft decree was confirmed and approved by the EU Commission. Subsequently, in December 2021, it was taken to the State-Regions Conference, obtaining a favorable opinion. Currently, the decree has been sent to the Control Bodies for registration and, therefore, to be sent for publication in the Official Gazette.

350m euros will be used for the sliding of the rankings of the 4th call, while the remaining 850m will be made available for the 5th call with the aim of financing 46 new contracts. The amount from the supplementary fund is 1.2 billion, which will be distributed as follows until 2026: 17 percent in 2021, 25 percent in both 2022 and 2023, 22 percent in 2024, 10 percent in 2025, and 2 percent in 2026.

# Integration with the CAP strategic plan 2023-2027

The Common Agricultural Policy (CAP) 2023-2027 programming is implemented through CAP National Strategic Plans (NSPs), which develop a comprehensive strategy of intervention for the agricultural sector and rural areas, taking advantage of the tools made available by the CAP: direct payments, sectoral interventions, and rural development policy. The goal of the PSP is the growth of the agribusiness and forestry sector, ensuring environmental, economic and social sustainability.

The interventions of the PSP, for which a more extensive description-which we refer to-is available in the Yearbook of Italian Agriculture 2021 (Ch. 12, CREA 2021), follow an integrated logic that works in synergy with the PNRR in order to achieve the Union's strategic objectives (defined in the *Green deal*, *Farm to Fork*, Biodiversity 2030 and new CAP documents), meeting the needs and priorities of sectors and rural areas, in line with the Commission's recommendations. In fact, the NRRP finances projects that represent necessary steps to improve the competitiveness and sustainability of the agrifood system, to foster the organization of supply chains, and to strengthen connections between producers and consumers, making a major contribution to meeting needs and priorities identified in the preparation of the Italian PSP.

The following table summarizes the main interventions in which the two Plans complement each other, taking into account, both the specific objectives (SOs), EC recommendations and CAP requirements and the investments envisaged in the NRRP.

**TABLE 12. COMPLEMENTARITY BETWEEN THE CAP 2023-2027 AND THE NRRP**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CAP** | | | | | **NRRP and Supplementary Fund** | |
| **Specific goals** | | **Recommendation** | | **Requirement** | **Investments** | |
| OS3 | Improve the position of farmers in the value chain | CE1.3 | Improve the position of farmers in the food supply chain | Promote the processes of business and supply integration and aggregation | Supplementary Fund | Supply chain and district contracts for sustainable production |
| OS2 | Increasing competitiveness | CE1.3 | Improve the position of farmers in the food supply chain | Strengthening the quality and accessibility of infrastructure networks | M2C1 I.2.1 | Logistics development for agribusiness, fisheries and aquaculture, forestry, floriculture and nursery sectors |
| OS4 | Taking action to combat climate change | CE2.2 | Slowing climate change and reducing emissions of greenhouse gases and air pollutants | Incentivize the production and use of energy from renewable sources | M2C1 I.2.2 | Agrisolar Park |
| Promoting the sustainable use of plant protection products. | M2C1 I.2.3 | Innovation and mechanization in agriculture and food sector |
| CE2.3 | Promote climate change adaptation and resilience by encouraging sustainable management of agricultural and forest land | Efficient and sustainable use of water resources | M2C4 I.4.3 | Investments in irrigated agrosystem resilience for better water resource management |

Source: Crea, 2021.

As described, the interventions envisaged in the NRRP aim to contribute to the twin transitions (green and digital) by targeting an increase in renewable energy production and the competitiveness of the agri-food sectors with a view to sustainability and resilience. These aims also highlight their importance in light of the changed international situation, linked to the conflict in Ukraine, which has highlighted the need to achieve greater food and energy security within the EU.

# New measures to respond to the crisis in Ukraine

The conflict in Ukraine has severe repercussions on the business activities of the Italian primary sector, especially with regard to the increase in production costs (fuels, fuels, fertilizers, seeds and seedlings, plant protection products, animal feed and passive rentals). Russia represents, for our country, one of the main suppliers of crude oil and gas, which, due to sanctions, have suffered a substantial increase in prices, affecting the markets for both food products and technical means used in agriculture.

For the first time in many years, critical supply issues are being added for some agricultural inputs from the Central and Eastern part of Europe (cereals and oilseeds). The livestock sector, especially with regard to livestock feed, appears to have suffered the most the current situation, more than the rest of the agribusiness sector.

As a consequence of the serious situation, the European Commission has stressed the need to implement agro-ecological practices, develop precision agriculture (which ensures a decrease in dependence on imported pesticides by reducing their use), enhance renewable energy production and reduce the import of livestock-related raw materials.

In addition, the invasion of Ukraine has necessitated the adoption of a series of exceptional measures at the Union level, addressed primarily to the sectors most affected by the increase in production costs, which for Italy are the livestock and dairy sectors. These are both crisis measures and derogations from ordinary rules. In the first case, to counter market disruptions, the use of funds from assigned *revenue* and a part of the crisis reserve has been proposed. Under this mechanism, 500 million euros will be made available to Member States, of which about 48 million euros will be allocated to our country. These are funds to be used by September 2022, to which can be added up to 96 million euros of national co-financing, equal to +200%.

Regarding the Common Agricultural Policy (CAP), as from October 2022, each EU country will be able to provide a higher level of advances (up to 70 percent of the amount due to each beneficiary) in direct payments and area-based rural development measures to make up for the liquidity crisis of farms. In addition, the agricultural sector will be able to benefit, within the limit of 35,000 euros per farm, from the so-called Temporary Framework, which is an exceptional and temporary framework that allows Member States to take intervention measures by way of derogation from the ordinary state aid framework.

Italy's Budget Law 2022 includes measures to support certain crops, through the refinancing of the Competitiveness Fund, which provides specific support for producers of corn and vegetable proteins (legumes and soybeans). Resources from the Supply Chain Fund, established to support agricultural, fisheries and aquaculture production sectors, may also be used. With Bill No. 2564 of 2022 is granted to agricultural and fishing enterprises partial compensation for the higher charges actually incurred for the purchase of diesel fuel and gasoline for the traction of vehicles used for the exercise of the activity, an extraordinary contribution in the form of a tax credit equal to 20 percent of the expenditure for the purchase of fuel made in the first calendar quarter of the year 2022.

The current situation requires, on the one hand, the need to implement a series of emergency measures to support liquidity and reduce companies' costs and, on the other hand, to accelerate (boost) the implementation of the NRRP to ensure energy diversification of companies and strengthen the efficiency of supply chains. The NRRP, which was created with the aim of supporting Member States to emerge from the global pandemic crisis, is also a valuable opportunity to overcome the socio-economic effects brought about by the war.

The investments being made fit perfectly not only with the goals of the *Green Deal* and *Farm to fork* strategy, but are more relevant and responsive than ever to the Union's aims to support the national agricultural sector. The Agrisolare Park investment involving the installation of photovoltaic panels is, in fact, aimed precisely at reducing the high energy consumption of the agribusiness sector by upgrading production facilities; innovation and mechanization in the agriculture and food sector allow companies to reduce the use of pesticides, use less polluting vehicles, produce less waste and reuse waste for energy purposes according to a circular economy perspective.

**GLOSSARY**

Support activities for agriculture and post-harvest activities: they are activities related to agricultural production, not aimed at the collection of agricultural products, carried out on behalf of third parties. Also included are activities that follow the harvest, aimed at preparing agricultural products for the primary market. Agriculture support activities are identified with the code 01.6 in the Classification of economic activities Ateco 2007 (derived from the Nace Rev.2).

Secondary activities of agriculture: are the activities of production of non-agricultural goods and services (i.e. not belonging to the Nace codes 01, 02 and 03) carried out within the agricultural sector or referable to it (mainly agricultural tourism, processing of milk, fruit and meat, renewable energy production).

Deflator: is the ratio between an aggregate expressed in nominal terms and the same expressed in real terms. It indicates how much of the growth of the aggregate, expressed in nominal terms, is attributable to price changes.

Agricultural income indicator: is the so-called indicator A, defined by Eurostat as the value added at the cost of factors in real terms of agriculture per unit of work. The deflator used is that of GDP.

Base price: is the measure of the actual amount received by the manufacturer. Includes contributions on products and excludes product taxes and any trade and transport margins invoiced separately by the manufacturer.

Market ratio: in this context, the market ratio of agriculture is measured by the ratio between the index of producer prices of agricultural products (output) and that of intermediate consumption prices (input) for domestic producers.

Income from employment: is the cost borne by employers as remuneration for the work performed by workers employed by them. The aggregate of compensation of employees includes both gross salaries and social contributions, both actual and/or figurative.

Gross salaries: include salaries, salaries and ancillary skills, in cash and in kind, gross of tax and social security deductions, paid to employees directly and on a regular basis, as established by contracts, company agreements and legal regulations in force.

Annual work unit (AWU): is the full-time equivalent employment, i.e. the total hours worked divided by the average annual hours worked in full-time jobs in the country. One annual work unit corresponds to the work performed by one person who is occupied on an agricultural holding on a full-time basis.

Value added at basic prices: it is the difference between the value of the production of goods and services and the value of the intermediate costs incurred for this production. Production is valued at basic prices, ie net of taxes on products and gross of product subsidies and intermediate costs at purchase prices. Corresponds to the sum of production factors and depreciation.

Concatenated values: it is the measure in volume of the national accounting aggregates that allows to represent the real dynamics of the economic quantities net of the price Changes. For each aggregate and for each year the ratio between the value expressed at the prices of the previous year is calculated (for example the estimates for 2009 are expressed at 2008 prices) and the current value of the aggregate referred to the previous year. The volume indices on a mobile basis thus obtained are then reported to a fixed reference base (currently 2010) giving rise to chained volume indices. Multiplying these by the current value relating to the reference year we obtain the aggregate in chained values.

# METHODOLOGICAL NOTE

**The Economic Accounts of Agriculture**

The Economic Accounts of Agriculture (CEA) provide an overview of the activity of the sector. From the agricultural accounts derive economic trends by product, changes in basic prices and production volumes by product groups and by production sector. The data are processed according to the methodologies established by the European system of national and regional accounts (Sec 2010) and concern economic aggregates such as production, intermediate consumption, value added and agricultural income. The data has a high level of detail, both territorial and product. The methodology used follows the guidelines recommended by Eurostat

In this Report, in the first part are presented and analyzed the data relating to the central framework of the National Accounts, while in the part of the analysis of the European context those relating to the Account Satellite of Agriculture prepared for Eurostat for international comparisons (UE27). The two accounts present some differences: the Agriculture Satellite Account does not include the activities of family gardens, small farms and some service activities while it provides for the inclusion, among agricultural activities, of the production of wine and olive oil transformed by cooperatives (which, instead, is not included in the National Accounts as it is attributed to the beverage industry). In the case of wine, for example, he economic value of production is divided between Ateco 01.21.00 (cultivation of grapes and production of wine from own grapes) and Ateco 11.02.10 (production of table wine and quality wines produced in specific regions) where wine cooperatives and the wine industry are included.

**The value of agricultural production**

For the definition of the production value, the "quantity by price" method is used, which consists in multiplying the quantities of the products by their average annual unit price. This method guarantees the completeness of the estimates as more than 170 products and activities covering the entire production of the agricultural sector are considered. The calculation procedures are extremely detailed and concern every type of product at the 4-digit level of the Nace Rev.2. The quantities are detected starting from the survey "Estimation of surfaces and production of agricultural crops": the survey includes details at the provincial level and measures the areas invested, the average yields per hectare, the total production and the collected production and answers to the European Regulation 543/2009. Prices are collected through a specific survey called "Monthly survey of producer prices of products sold by farmers" with details for each province; the survey takes into account the seasonality of productions and excludes imported products. The average prices recorded (to the producer) are then increased by any contributions and adjusted for taxes on the products, thus obtaining the basic prices. Using the basic prices, the "quantity by price" method allows the production value to be obtained for each product. For other types of production, such as farms, the quantities (which also take into account ongoing production) are derived from specific surveys of a corporate nature: the most relevant are those on slaughterhouses for butchered meat and that on dairy farms for the conferment of milk to the dairy-dairy industry. This information makes it possible to extend the quantity by price method to the evaluation of livestock production.

A similar consideration concerns the estimates of other production aggregates such as secondary activities and support activities. For example, in the estimates of the agricultural tourism the surveys on presence and flows in agricultural tourism companies and on the movement of customers in hospitality establishments are taken into account; these estimates are then compared with the evaluations of the sector organizations and with the VAT declarations of the agricultural sector. Another example concerns the production of electricity from renewable sources (photovoltaic, biomass, biogas) which is estimated starting from the data relating to the energy produced expressed in KW / h for the main sectors of economic activity (agriculture, industry, services) taken over by the Energy Services Manager (GSE). The quantities of energy produced by the agricultural sector are then valued through the average sale price including any aid.

In September 2019, following the review of the National Accounts (which also affected the branch of agriculture, forestry and fishing), new assessments on the Economic Accounts of Agriculture were included on the estimates of renewable energy within the activities secondary. These assessments also took into account the heat production of biomass and biogas plants. In addition, new technical coefficients have been adopted to determine the production and use of cereal straws.

**The intermediate consumption of agriculture**

The estimate of the intermediate consumption of the sector is processed through a methodology attributable to the "quantity by price" approach. In addition to the consolidated cost components (for example technical means such as feed, fertilizers, seeds and phytosanitary), new types of farm costs have been included such as insurance costs for structures and animal husbandry, costs related to bottling, the marketing of the wine produced on the farm, costs for packaging related to the first processing of the products and preparation for the markets, routine maintenance costs for photovoltaic systems and biogas plants, expenses for the maintenance of parks and gardens, other minor expenses related to farm tourism and related activities and finally the expenses related to other support activities. The sources used range from specific surveys on technical means, to the monthly survey on the prices of products purchased by farmers to end up with the Rica-Rea sample survey, which provides basic microeconomic information on farms and includes a specific section in the questionnaire to costs.

**The value of forestry and fishing production**

The production of forestry is calculated with the quantity approach by price of the cut by type of wood (for work or wood for energy use) for the respective prices. With the Nace Rev.2 classification, the evaluation of the harvest of vegetables and fruit trees from the woods previously associated with agriculture was added. Industry estimates were also affected by the revaluation of support services (Ateco 02.20.00) through the processing of administrative data of the VAT returns of the forestry sector.

Finally, regional forestry companies (Ateco 02.40.00) were included which in the past were classified in the Public Administrations sector. The activity of regional forest companies, oriented to the preservation of parks and woods, expands the field of forest support activities with a more oriented attribution towards services related to production. With the review of the National Accounts of September 2019 in the field of forestry production, the estimate of "standing timber" was taken into account and accounted for, that is, the value of the net growths in the forest.

Fishing production is also calculated using the quantity by price approach. The quantities of fish caught (fish, molluscs and crustaceans), are supplemented with further estimates to ensure the exhaustiveness of the phenomenon. The quantities of aquaculture production come from the specific survey carried out by the Ministry of Agriculture, Food and Forestry (MIPAAF). All quantities are valued with the respective average prices. The sector estimates were also affected by the revaluation of support services (Ateco 03.11.00) deriving from the administrative data of the fisheries sector VAT returns.

# References and insights

More detailed data from the 1980-2020 time series are available on http://dati.istat.it, al tema under the theme "National Accounts" / "Accounts of the branch of agriculture, forestry and fishing" where it is also possible to acquire information to the regional level of detail.

News and in-depth information on "News in agricultural accounts -The revision of the national and regional accounts of agriculture and the changes made with the introduction of the Sec 2010" are available on the page <http://www.istat.it/it/archivio/162712>.

Information on national accounts (annual and quarterly) and on institutional, territorial and environmental accounts is available on the page <http://www.istat.it/it/conti-nazionali>.

Detailed data at European level are available at <http://ec.europa.eu/eurostat/data/database> under the theme “Agriculture, forestry and fisheries”/“Agriculture”/“Economic Accounts for Agriculture”.

Further technical and methodologyinformation

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1. In the cultivation of olive oil, generally, a year with abundant production (called charge) follows one with low production (called discharge). This alternation of production is sometimes repeated for several consecutive years with relative constancy and is genetically determined, even if its intensity is influenced by the variety, the quantity of fruiting of the previous year, the climatic-environmental conditions as well as the cultivation and cultivation and pruning techniques. [↑](#footnote-ref-1)
2. These are data that refer to the Agriculture Satellite Account prepared by Eurostat. For further details see the "Methodological note". [↑](#footnote-ref-2)