

Distr.  
GENERAL

CES/AC.61/2003/19  
19 June 2003

ENGLISH ONLY\*

**STATISTICAL COMMISSION and  
ECONOMIC COMMISSION FOR  
EUROPE**

**STATISTICAL OFFICE OF THE  
EUROPEAN COMMUNITIES  
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**CONFERENCE OF EUROPEAN  
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**FOOD AND AGRICULTURAL  
ORGANISATION (FAO)**

**Joint UNECE/EUROSTAT/FAO/OECD  
Meeting on Food and Agricultural Statistics  
in Europe**  
(Geneva, 2-4 July 2003)

**ORGANISATION FOR ECONOMIC  
CO-OPERATION AND DEVELOPMENT  
(OECD)**

**FARMS MULTIFUNCTIONALITY AND HOUSEHOLD INCOME IN ITALY:  
A SUSTAINABLE MIX**

Invited paper submitted by ISTAT, Italy\*\*

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\* Due to the late submission of this paper, it could neither be translated nor reproduced.

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## I. INTRODUCTION

1. Over the last decade the agricultural industry has undergone a deep structural change as a consequence of an acceleration in the international market integration. Globalisation, market conditions change, concentration of industry, growing dependence on technology has rapidly changed the economic environment of farmers. Tradition and experience alone are not anymore enough to protect them from competition, environmental turbulence and changing agricultural policy.

2. Nowadays, the main fact is that most of the agricultural holders, in order to survive fast changes surrounding them and to continue to operate in their native economic sector, have undertaken new farm business management directions. Most of the producers are not any more just plain farmers that produce exclusively agricultural commodities, but they became multi-activity producers who practice joint production and off-farm work.

3. This is the twenty-first century Italian agricultural reality, characterised by a large number of very small local technical units of production, with direct management by the farm-household. A small number of large firms, that account for the majority of sales, are specialised and intensive producers of agricultural commodities. They operate beside the small multi-functionally farmers that work not just for market and profit maximisation but, in macro-terms, protect the natural environment and the renewable resources, such as water and land; save bio-diversity; feed human being with quality food; sustain rural communities and territorial based employment.

4. This organisation of production, that is typical of all Mediterranean regions and of many rural areas of the rest of Europe, may generate a long-term decline in the number of small farms but, at the same time, several new economic opportunities for them. Some of these opportunities are related to the growing demand for tourism, recreation and quality products. Others are linked with landscape management and natural environment protection.

5. In this paper the authors would like to evaluate the phenomenon of multi-activity of national holders together with off-farm income, based on the data available from a new business investigation on the agricultural sector (REA) carried out by the National Institute of Statistics (Istat) from 1998 onwards<sup>1</sup>. The structural variables available are the same as those required in agricultural policy studies (number of farms, labour units, value added, off-farm income) and, in the estimation stage, concern agricultural and main secondary activities classified by typology of holdings.

## II. FROM THE STUDY OF THE PHENOMENON TO DATA AVAILABLE

6. The nature of information required to study multi-dimensional and complex phenomena at a micro-level could not be satisfied by available data until recent years. In the past, data usually utilised for analysis were macro-aggregates, such as national accounts time-series, since they were easily available. This data-source, useful for macroeconomic

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<sup>1</sup> For more information on Farms Business Survey (*Risultati Economici delle Aziende Agricole*, REA) of Istat, see the Web page [www.istat.it/Imprese-e-/index.htm](http://www.istat.it/Imprese-e-/index.htm).

evaluations, was unsatisfactory for specific studies at regional, farm or specific sector level, due to their aggregate nature.

7. To perform analysis on agricultural policy effects in Italy, at regional and macro levels, there has been an increasing demand and use of economic data collected from farms, especially from RICA (European Farm Account Network, FADN). The main drawback of the studies based on this data source was related to the nature of the sample: large firms, not randomly selected and not representative of the sector-wide holdings population. After that, the RICA sample was changing over years, on a free in/out movement of farms in the sample (statistical units), without following any ex-ante correction plan (unbalanced sample). As a consequence, this database generates biased estimations, difficult to control and to correct on a statistical base.

8. Some further reasons drove Istat toward the realisation of a new business survey in agriculture. The introduction of the new European System of Accounts (ESA 95) required information based on Local Units of Economic Activity and not anymore on the “national farm”. The integration of real and monetary variables is not enough to be done down-stream of the data generation process, but has to be realised at the origin, that is at the microeconomic level.

9. Furthermore, there was a greater interest on quantitative policy evaluation at a micro level for several reasons. The scientific progress in econometric modelling gives the opportunity to the economists to specify, estimate and forecast micro-macro economic behaviour and to better evaluate the policy impact. At the other end, the evolution of policy decisions in European agriculture (Common Agricultural Policy, CAP) is characterised by a complex impact on holdings and their business decisions making. This is due to an increase of policy objects, that shift from a strict sectoral agricultural policy to more territorial based rural policy. Agricultural policies have gradually been broadened to include support for income in rural areas, environmental protection, rural tourism, product diversification of farms and quality of food improvement. A growing and wider number of policy actions produce a complex effect on the agricultural sector, that required a deeper monitoring at a micro-level.

10. In 1997, Istat with a scientific collaboration with the National Institute for Agricultural Economics (INEA) that is responsible for FADN in Italy (RICA) and the support of Italian Regions, studied the possibility to realise a new business survey in agriculture as a sub-sample of the farm structure survey (European FSS). After an experimental survey for 1997, the implementation on a regular annual base of the data collection required several years of study and a considerable effort, but the support of the other public institutions gave the opportunity to overcome all the difficulties. The main result of this process has been the new Italian joint business survey in agriculture, denominated “RICA-REA”. The new joint survey started this year on one random sample of farms extracted by Istat from the 2000 Agricultural Census database.

11. In this paper the authors would like to give a flavour of the information potential of this new statistical survey for agriculture, that is coherent with the evolutions of the production processes in this sector and the new directions of the common agricultural policy.

### III. THE DATA FROM THE ITALIAN AGRICULTURAL BUSINESS SURVEY (REA)

12. The database used for the analysis come from the Agricultural Business Survey (REA) realised in 1999. The database is integrated, at individual level (holdings level), with the database from the Farm Structure Survey (FSS), for the same reference period. The variables considered are the main structural characteristics and economic results of holdings operating in the agricultural sector. Beside strict agricultural activities (production of raw goods from land use and livestock breeding) the integrated and secondary activities are considered: product transformations, agri-tourism, work for other holdings and other related activities (hydro-culture, landscape maintenance, other services and paid activities). Finally, off-farm income sources are considered.

13. Farms are classified in terms of kind of activities (strict agricultural only, with one or more on-farm secondary activities), types of farming, geographical location (longitude and altitude), and on off-farm source of income.

14. The main variable considered in this work are the number of holdings, a measure of labour and value added. These variables are considered in absolute and average terms. Labour input is considered on the conventional standard of a day worked (at least 8 hours a day), 280 work days provided in the year. If in a day a person works less than 8 hours, then the hours are converted into a day of 8 hours. In such a way we measure this input in homogeneous Annual Work Unit (AWU), vacation and illness excluded.

15. Value added (VA) is calculated at the holder level, following the ESA 95 definition, including in the calculation of production and intermediate consumption, self-consumption of the household and inputs in the production process of vegetable and animal raw goods from the farm's own output. This variable is considered as good long-run indicator of the farm productivity from the main characteristic activity of the holdings.

16. Finally, off-farm sources of income considered in the REA survey are the following: pensions, wages from dependent work, profits and interests from capital and financial investments.

### IV. MAIN RESULTS: FROM SINGLE TO MULTI-ACTIVITY HOLDINGS

17. Structural characteristics. The distribution of farms reported in Table. 1 accounts for the structural characteristics of holdings system in Italy and supplies a measure of the kind of activity and policy effort at the end of the twentieth century with Agenda 2000. A main result is that together with 88.3% of Italian farms (equal to 2,191,029 farms) just dedicated to agriculture (strict agricultural only), 11.7% (290,000 farms) are dedicated to at least a secondary activity related to agriculture, of which 9.5% are dedicated to one more activity and 2.2% to two or more activities.

**Tab. 1 – Number of holdings by kind of activity and types of farming - Year 1999**

Kind of Activity	Specialist					Mixed			Not classifiable	Italy
	Field crops	Horti-culture	Permanent crops	Grazing livestock	Granivores	Mixed cropping	Mixed livestock	Cropping-livestock		
	Absolute values									
<b>Strict agricultural</b>	<b>545,684</b>	<b>34,609</b>	<b>1,048,878</b>	<b>167,859</b>	<b>4,723</b>	<b>257,023</b>	<b>17,968</b>	<b>96,159</b>	<b>18,127</b>	<b>2,191,029</b>
<b>One secondary activity</b>	<b>48,758</b>	<b>1,737</b>	<b>104,610</b>	<b>33,386</b>	<b>1,116</b>	<b>27,743</b>	<b>5,626</b>	<b>12,231</b>	<b>-</b>	<b>235,207</b>
<i>Vegetable products transformation</i>	<i>18,832</i>	<i>303</i>	<i>33,381</i>	<i>10,186</i>	<i>-</i>	<i>9,252</i>	<i>2,749</i>	<i>489</i>	<i>-</i>	<i>75,191</i>
<i>Animal products transformation</i>	<i>4,197</i>	<i>58</i>	<i>1,687</i>	<i>13,263</i>	<i>574</i>	<i>2,715</i>	<i>1,054</i>	<i>3,723</i>	<i>-</i>	<i>27,270</i>
<i>Agri-tourism</i>	<i>1,180</i>	<i>-</i>	<i>1,875</i>	<i>4,093</i>	<i>-</i>	<i>1,012</i>	<i>7</i>	<i>944</i>	<i>-</i>	<i>9,112</i>
<i>Work to other holdings</i>	<i>7,115</i>	<i>26</i>	<i>6,904</i>	<i>2,649</i>	<i>6</i>	<i>3,102</i>	<i>756</i>	<i>1,964</i>	<i>-</i>	<i>22,522</i>
<b>Two or more secondary activities</b>	<b>16,957</b>	<b>1,193</b>	<b>15,886</b>	<b>6,497</b>	<b>253</b>	<b>6,232</b>	<b>35</b>	<b>7,988</b>	<b>-</b>	<b>55,042</b>
<i>With agri-tourism</i>	<i>149</i>	<i>23</i>	<i>683</i>	<i>780</i>	<i>-</i>	<i>32</i>	<i>5</i>	<i>309</i>	<i>-</i>	<i>1,981</i>
<b>Total</b>	<b>611,399</b>	<b>37,538</b>	<b>1,169,374</b>	<b>207,742</b>	<b>6,092</b>	<b>290,998</b>	<b>23,629</b>	<b>116,379</b>	<b>18,127</b>	<b>2,481,278</b>
	%									
<b>Strict agricultural</b>	<b>89.3</b>	<b>92.2</b>	<b>89.7</b>	<b>80.8</b>	<b>77.5</b>	<b>88.3</b>	<b>76.0</b>	<b>82.6</b>	<b>100.0</b>	<b>88.3</b>
<b>One secondary activity</b>	<b>8.0</b>	<b>4.6</b>	<b>8.9</b>	<b>16.1</b>	<b>18.3</b>	<b>9.5</b>	<b>23.8</b>	<b>10.5</b>	<b>-</b>	<b>9.5</b>
<i>Vegetable products transformation</i>	<i>3.1</i>	<i>0.8</i>	<i>2.9</i>	<i>4.9</i>	<i>0.0</i>	<i>3.2</i>	<i>11.6</i>	<i>0.4</i>	<i>-</i>	<i>3.0</i>
<i>Animal products transformation</i>	<i>0.7</i>	<i>0.2</i>	<i>0.1</i>	<i>6.4</i>	<i>9.4</i>	<i>0.9</i>	<i>4.5</i>	<i>3.2</i>	<i>-</i>	<i>1.1</i>
<i>Agri-tourism</i>	<i>0.2</i>	<i>-</i>	<i>0.2</i>	<i>2.0</i>	<i>-</i>	<i>0.3</i>	<i>0.0</i>	<i>0.8</i>	<i>-</i>	<i>0.4</i>
<i>Work to other holdings</i>	<i>1.2</i>	<i>0.1</i>	<i>0.6</i>	<i>1.3</i>	<i>0.1</i>	<i>1.1</i>	<i>3.2</i>	<i>1.7</i>	<i>-</i>	<i>0.9</i>
<b>Two or more secondary activities</b>	<b>2.8</b>	<b>3.2</b>	<b>1.4</b>	<b>3.1</b>	<b>4.2</b>	<b>2.1</b>	<b>0.1</b>	<b>6.9</b>	<b>-</b>	<b>2.2</b>
<i>With agri-tourism</i>	<i>0.0</i>	<i>0.1</i>	<i>0.1</i>	<i>0.4</i>	<i>-</i>	<i>0.0</i>	<i>0.0</i>	<i>0.3</i>	<i>-</i>	<i>0.1</i>
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

18. If we consider holdings by farm type, the most oriented to multi-activity are holdings specialized in livestock breeding: 23.9% of mixed livestock, 22.5% of granivorous livestock and 19.2% of grazing livestock specialist. After that, 17.4% of holdings without a specialisation, with land use and animal breeding, are oriented to one or more activities. On the other side, only 7.8% of holders specialized in horticulture are involved in secondary activities next to the main agricultural production.

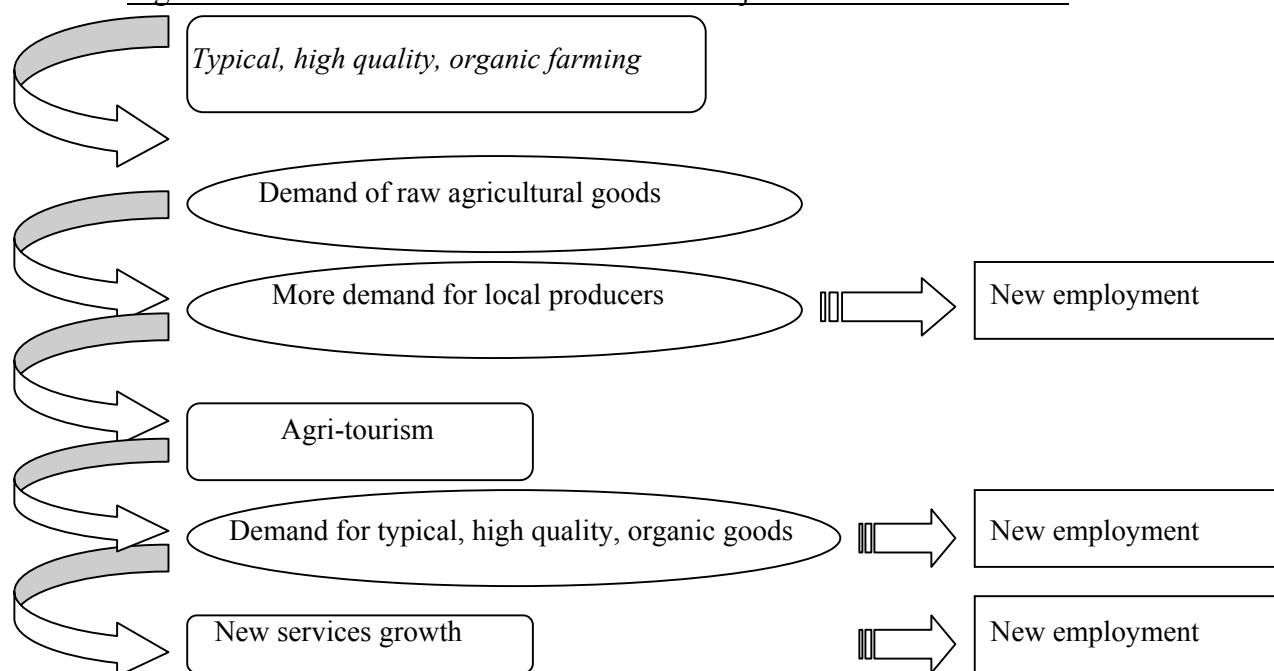
19. A first conclusion that can be drawn is that 290,000 holders (11.7%) are not anymore behaving as simple producers of agricultural commodities. They are, indeed, rural multi-activity and more, multi-functional farmers, strictly related to local social-economic dynamics, that is to say to natural environment, market and innovative services.

20. A second conclusion is that policy actions have a greater relationship to regions and local agents. In such a way, they become the central engine for rural development, technological innovation and a stable employment. The transformation of products, traditional and of high quality (grapes for DOC and DOCG wine, biological products, etc.) and agri-

tourism become sectors of a growing interest and new perspectives, at the centre of a new process of development strictly linked to tradition, rural culture and land.

21. In any case, rural development does not mean just coming back to land and countryside. If we consider agriculture just from the National Product point of view, we realise that it is a marginal sector. Nevertheless, a new development model requires a new central role for “rural life” and agriculture, for the whole of its ingredients: social, historical, economical, productive and environmental aspects. All of them have to be preserved to reach the objective of an intra and inter-generation equity. The strategic objective is to start a process of recovering-remake of traditional activities that may generate a virtuous mechanism of wealth production and employment. Figure 1 shows how high quality commodities, produced in traditional ways by qualified workers from rural areas, regenerate the full chain of production over the whole local area, with an increase of services supply and a stable employment. The final result will be a general increase of the quality of life at local rural level.

Figure 1: A model of auto-fertilisation of new- job creation in rural areas



22. If we move away from the theory, we realise that the abandonment of the countryside, elderly people and shift of labour to female population in agriculture is a historical trend in Italy. If agriculture does not produce a constant income to young people, they prefer a minimum but secure income from any public employment. The consequence is that multi-functionality and multi-activity of holdings is not only a future opportunity but a necessary choice to most small farmers in the south of Europe and in candidate countries to an enlarged EU.

23. From a geographical location point of view, holdings on the mountain have more possibilities to exploit new secondary activities, related to the tourism on the mountain (during the winter and the summer), the recovery of rural life and plentiful of environmental resources. It is in this areas that we find most of the agri-tourism activity, a new economic resource, growing very fast and not yet completely exploited (Tab. 2). In the mountain, 1.7% of holdings have agri-tourism as the secondary activity and 15.5% are involved in at least a secondary activity; a higher proportion than hill and plain holdings.

**Tab. 2 – Number of holdings by kind of activity and geographical location - Year 1999**

Kind of Activity	Geographical location			
	Mountain	hill	Plain	Italy
	Absolute values			
<b>Strict agricultural</b>	<b>369,878</b>	<b>1,126,875</b>	<b>694,277</b>	<b>2,191,030</b>
<b>One secondary activity</b>	<b>54,387</b>	<b>121,222</b>	<b>59,598</b>	<b>235,207</b>
<i>Vegetable products transformation</i>	<i>13,561</i>	<i>44,964</i>	<i>16,666</i>	<i>75,191</i>
<i>Animal products transformation</i>	<i>11,600</i>	<i>13,190</i>	<i>2,480</i>	<i>27,270</i>
<i>Agri-tourism</i>	<i>6,033</i>	<i>2,476</i>	<i>603</i>	<i>9,112</i>
<i>Work to other holdings</i>	<i>4,853</i>	<i>9,562</i>	<i>8,107</i>	<i>22,522</i>
<b>Two or more secondary activities</b>	<b>13,769</b>	<b>21,678</b>	<b>19,595</b>	<b>55,042</b>
<i>With agri-tourism</i>	<i>1,419</i>	<i>506</i>	<i>54</i>	<i>1,981</i>
<b>Total</b>	<b>438,034</b>	<b>1,269,774</b>	<b>773,470</b>	<b>2,481,278</b>
	%			
<b>Strict agricultural</b>	<b>84.4</b>	<b>88.7</b>	<b>89.8</b>	<b>88.3</b>
<b>One secondary activity</b>	<b>12.4</b>	<b>9.5</b>	<b>7.7</b>	<b>9.5</b>
<i>Vegetable products transformation</i>	<i>3.1</i>	<i>3.5</i>	<i>2.2</i>	<i>3.0</i>
<i>Animal products transformation</i>	<i>2.6</i>	<i>1.0</i>	<i>0.3</i>	<i>1.1</i>
<i>Agri-tourism</i>	<i>1.4</i>	<i>0.2</i>	<i>0.1</i>	<i>0.4</i>
<i>Work to other holdings</i>	<i>1.1</i>	<i>0.8</i>	<i>1.0</i>	<i>0.9</i>
<b>Two or more secondary activities</b>	<b>3.1</b>	<b>1.7</b>	<b>2.5</b>	<b>2.2</b>
<i>With agri-tourism</i>	<i>0.3</i>	<i>0.0</i>	<i>0.0</i>	<i>0.1</i>
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

24. If we consider the north-south location of farms, we observe that holdings from the north of Italy have quickly exploited new opportunities offered by new activities in agriculture (Tab. 3). In the north of Italy, 1.0% of holding are dedicated to one or more secondary activities, compared to the centre (0.8%) and south (0.1%) regions. The same holds if we consider holdings with two or more activities: 3.3% in the north, compared to 3.1% and 1.5% in the centre and the south on Italy. Multi-activity is largely widespread in the centre of Italy, with 13.5% of total holdings.



**Tab. 3 – Number of holdings by kind of activity and geographical location - Year 1999**

Kind of Activity	Geographical location			
	North	Centre	South	Italy
	Absolute values			
<b>Strict agricultural</b>	<b>558,772</b>	<b>339,834</b>	<b>1,292,423</b>	<b>2,191,029</b>
<b>One secondary activity</b>	<b>49,910</b>	<b>40,987</b>	<b>144,309</b>	<b>235,206</b>
<i>Vegetable products transformation</i>	<i>15,809</i>	<i>15,110</i>	<i>44,272</i>	<i>75,191</i>
<i>Animal products transformation</i>	<i>6,004</i>	<i>1,774</i>	<i>19,493</i>	<i>27,271</i>
<i>Agri-tourism</i>	<i>5,323</i>	<i>2,942</i>	<i>846</i>	<i>9,111</i>
<i>Work to other holdings</i>	<i>2,864</i>	<i>2,631</i>	<i>17,026</i>	<i>22,521</i>
<b>Two or more secondary activities</b>	<b>20,813</b>	<b>12,183</b>	<b>22,046</b>	<b>55,042</b>
<i>With agri-tourism</i>	<i>1,273</i>	<i>300</i>	<i>405</i>	<i>1,981</i>
<b>Total</b>	<b>629,495</b>	<b>393,004</b>	<b>1,458,779</b>	<b>2,481,278</b>
	%			
<b>Strict agricultural</b>	<b>88.8</b>	<b>86.5</b>	<b>88.6</b>	<b>88.3</b>
<b>One secondary activity</b>	<b>7.9</b>	<b>10.4</b>	<b>9.9</b>	<b>9.5</b>
<i>Vegetable products transformation</i>	<i>2.5</i>	<i>3.8</i>	<i>3.0</i>	<i>3.0</i>
<i>Animal products transformation</i>	<i>1.0</i>	<i>0.5</i>	<i>1.3</i>	<i>1.1</i>
<i>Agri-tourism</i>	<i>0.8</i>	<i>0.7</i>	<i>0.1</i>	<i>0.4</i>
<i>Work to other holdings</i>	<i>0.5</i>	<i>0.7</i>	<i>1.2</i>	<i>0.9</i>
<b>Two or more secondary activities</b>	<b>3.3</b>	<b>3.1</b>	<b>1.5</b>	<b>2.2</b>
<i>With agri-tourism</i>	<i>0.2</i>	<i>0.1</i>	<i>0.0</i>	<i>0.1</i>
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

25. Value added. In tables 4 and 5 information is provided on total income, in Euro, from all agricultural activities, at the macro (aggregate) and micro (average) level.

26. Table 4 shows the distribution of value added produced by different types of holdings. An important result is that the 11.7% of holdings with secondary activities, produce a value added of 4,950 million Euro, equal to 24.1% of total agricultural value added; 14.7% with just one more secondary activity. Furthermore, 2.2% of holdings with two or more secondary activities, produce 9.4% of total agricultural value added, with a ratio of proportion of value added to proportion of holdings shifting from 2.1 to 4.3. This is a sharp increase in productivity and profitability, moving from traditional holdings to multi-activity ones.

**Tab. 4 – Value added of holdings by kind of activity and types of farming - Year 1999 (Euro)**

Kind of Activity	Specialist						Mixed		Not classifiable	Italy
	Field crops	Horti- culture	Permanent crops	Grazing livestock	Granivores	Mixed cropping	Mixed livestock	Cropping- livestock		
	Absolute values									
<b>Strict agricultural</b>	<b>3,534,630</b>	<b>1,183,988</b>	<b>5,280,856</b>	<b>2,435,113</b>	<b>339,264</b>	<b>1,275,775</b>	<b>427,045</b>	<b>1,100,846</b>	<b>67,465</b>	<b>15,644,982</b>
<b>One secondary activity</b>	<b>496,360</b>	<b>392,203</b>	<b>754,612</b>	<b>823,896</b>	<b>114,842</b>	<b>137,522</b>	<b>80,432</b>	<b>222,846</b>	<b>-</b>	<b>3,022,713</b>
<i>Vegetable products transformation</i>	<i>136,957</i>	<i>244,472</i>	<i>290,824</i>	<i>155,737</i>	<i>-</i>	<i>21,656</i>	<i>-4,719</i>	<i>6,508</i>	<i>-</i>	<i>851,435</i>
<i>Animal products transformation</i>	<i>39,321</i>	<i>4,506</i>	<i>10,883</i>	<i>271,672</i>	<i>35,351</i>	<i>20,249</i>	<i>32,339</i>	<i>49,491</i>	<i>-</i>	<i>463,813</i>
<i>Agri-tourism</i>	<i>17,685</i>	<i>-</i>	<i>102,653</i>	<i>144,797</i>	<i>-</i>	<i>26,524</i>	<i>543</i>	<i>82,372</i>	<i>-</i>	<i>374,574</i>
<i>Work to other holdings</i>	<i>183,773</i>	<i>1,130</i>	<i>9,922</i>	<i>84,854</i>	<i>161</i>	<i>39,190</i>	<i>9,461</i>	<i>40,270</i>	<i>-</i>	<i>368,762</i>
<b>Two or more secondary activities</b>	<b>64,444</b>	<b>40,997</b>	<b>395,449</b>	<b>74,473</b>	<b>1,163,112</b>	<b>77,855</b>	<b>2,965</b>	<b>109,573</b>	<b>-</b>	<b>1,928,868</b>
<i>With agri-tourism</i>	<i>8,569</i>	<i>6,199</i>	<i>93,137</i>	<i>35,962</i>	<i>-</i>	<i>3,504</i>	<i>660</i>	<i>7,589</i>	<i>-</i>	<i>155,620</i>
<b>Total</b>	<b>4,095,434</b>	<b>1,617,188</b>	<b>6,430,916</b>	<b>3,333,482</b>	<b>1,617,219</b>	<b>1,491,153</b>	<b>510,442</b>	<b>1,433,265</b>	<b>67,465</b>	<b>20,596,563</b>
	%									
<b>Strict agricultural</b>	<b>86.3</b>	<b>73.2</b>	<b>82.1</b>	<b>73.1</b>	<b>21.0</b>	<b>85.6</b>	<b>83.7</b>	<b>76.8</b>	<b>100.0</b>	<b>76.0</b>
<b>One secondary activity</b>	<b>12.1</b>	<b>24.3</b>	<b>11.7</b>	<b>24.7</b>	<b>7.1</b>	<b>9.2</b>	<b>15.8</b>	<b>15.5</b>	<b>-</b>	<b>14.7</b>
<i>Vegetable products transformation</i>	<i>3.3</i>	<i>15.1</i>	<i>4.5</i>	<i>4.7</i>	<i>-</i>	<i>1.5</i>	<i>-0.9</i>	<i>0.5</i>	<i>-</i>	<i>4.1</i>
<i>Animal products transformation</i>	<i>1.0</i>	<i>0.3</i>	<i>0.2</i>	<i>8.1</i>	<i>2.2</i>	<i>1.4</i>	<i>6.3</i>	<i>3.5</i>	<i>-</i>	<i>2.3</i>
<i>Agri-tourism</i>	<i>0.4</i>	<i>-</i>	<i>1.6</i>	<i>4.3</i>	<i>-</i>	<i>1.8</i>	<i>0.1</i>	<i>5.7</i>	<i>-</i>	<i>1.8</i>
<i>Work to other holdings</i>	<i>4.5</i>	<i>0.1</i>	<i>0.2</i>	<i>2.5</i>	<i>0.0</i>	<i>2.6</i>	<i>1.9</i>	<i>2.8</i>	<i>-</i>	<i>1.8</i>
<b>Two or more secondary activities</b>	<b>1.6</b>	<b>2.5</b>	<b>6.1</b>	<b>2.2</b>	<b>71.9</b>	<b>5.2</b>	<b>0.6</b>	<b>7.6</b>	<b>-</b>	<b>9.4</b>
<i>With agri-tourism</i>	<i>0.2</i>	<i>0.4</i>	<i>1.4</i>	<i>1.1</i>	<i>-</i>	<i>0.2</i>	<i>0.1</i>	<i>0.5</i>	<i>-</i>	<i>0.8</i>
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

27. In table 5, we observe that average value added of holdings in 1999 was only 8,301 Euro. If we consider holdings with a secondary, on-farm activities, average value added grows to 12,851 Euro; if we move to holdings with more activities, average value added more than doubles to 35,000 Euro.

28. This result varies with respect to the kind of secondary activity involved. The best results come from holdings with agri-tourism (from 41,108 Euro to 78,556 Euro), but better than average results come from animal products transformation (17,008 Euro), work on other holdings (16,373 Euro) and vegetable products transformation (11,324 Euro).

**Tab. 5 – Average value added of holdings by kind of activity and types of farming - Year 1999 (Euro)**

Kind of Activity	Specialist					Mixed			Not classifiable	Italy
	Field crops	Horticulture	Permanent crops	Grazing livestock	Granivores	Mixed cropping	Mixed livestock	Cropping-livestock		
	Absolute values									
<b>Strict agricultural</b>	<b>6,477</b>	<b>34,210</b>	<b>5,035</b>	<b>14,507</b>	<b>71,832</b>	<b>4,964</b>	<b>23,767</b>	<b>11,448</b>	<b>3,722</b>	<b>7,140</b>
<b>One secondary activity</b>	<b>10,180</b>	<b>225,793</b>	<b>7,214</b>	<b>24,678</b>	<b>102,905</b>	<b>4,957</b>	<b>14,297</b>	<b>18,220</b>	-	<b>12,851</b>
<i>Vegetable products transformation</i>	7,273	806,840	8,712	15,289	-	2,341	-1,717	13,309	-	11,324
<i>Animal products transformation</i>	9,369	77,696	6,451	20,483	61,588	7,458	30,682	13,293	-	17,008
<i>Agri-tourism</i>	14,988	-	54,748	35,377	-	26,210	77,632	87,258	-	41,108
<i>Work to other holdings</i>	25,829	43,456	1,437	32,033	26,832	12,634	12,515	20,504	-	16,373
<b>Two or more secondary activities</b>	<b>3,800</b>	<b>34,365</b>	<b>24,893</b>	<b>11,463</b>	<b>459,728</b>	<b>12,493</b>	<b>84,711</b>	<b>13,717</b>	-	<b>35,044</b>
<i>With agri-tourism</i>	57,507	269,527	136,365	46,106	-	109,492	132,028	24,560	-	78,556
<b>Total</b>	<b>6,698</b>	<b>43,081</b>	<b>5,499</b>	<b>16,046</b>	<b>265,466</b>	<b>5,124</b>	<b>21,602</b>	<b>12,315</b>	<b>3,722</b>	<b>8,301</b>
	Ratios									
<b>Strict agricultural</b>	<b>0.0</b>	<b>-0.2</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.7</b>	<b>0.0</b>	<b>0.1</b>	<b>-0.1</b>	<b>0.0</b>	<b>-0.1</b>
<b>One secondary activity</b>	<b>0.5</b>	<b>4.2</b>	<b>0.3</b>	<b>0.5</b>	<b>-0.6</b>	<b>0.0</b>	<b>-0.3</b>	<b>0.5</b>	-	<b>0.5</b>
<i>Vegetable products transformation</i>	0.1	17.7	0.6	0.0	-	-0.5	-1.1	0.1	-	0.4
<i>Animal products transformation</i>	0.4	0.8	0.2	0.3	-0.8	0.5	0.4	0.1	-	1.0
<i>Agri-tourism</i>	1.2	-	9.0	1.2	-	4.1	2.6	6.1	-	4.0
<i>Work to other holdings</i>	2.9	0.0	-0.7	1.0	-0.9	1.5	-0.4	0.7	-	1.0
<b>Two or more secondary activities</b>	<b>-0.4</b>	<b>-0.2</b>	<b>3.5</b>	<b>-0.3</b>	<b>0.7</b>	<b>1.4</b>	<b>2.9</b>	<b>0.1</b>	-	<b>3.2</b>
<i>With agri-tourism</i>	7.6	5.3	23.8	1.9	-	20.4	5.1	1.0	-	8.5
<b>Total</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

29. Multi-activity increase the on-farm possibility of income for most farm type of holdings, mainly if the holding is specialised in the kind of secondary activity reported in table 5.

30. Labour force. From Table 6, we observe that the secondary activities generate more employment in agriculture. Labour force, measured as annual work unit (AWU), in multi-activity holdings is 17.4% of the total, compared to 11.7% of holdings involved.

31. The macroeconomic effect is positive in terms of employment, but not always from the micro-point of view. With multi-activity, holdings produce a differentiated cash-flow to cover the necessary wage payment to the dependent labour force. In some cases the increase of value added is less than proportional to the increase of labour force (e.g. 16.8% increase of AWU for holdings specialised to granivorous livestock with one more activity, compared to 7.1% increase of value added).

**Tab. 6 – Annual work units (AWU) by holdings' kind of activity and types of farming - Year 1999**

Kind of Activity	Specialist						Mixed		Not classifiable	Italy
	Field crops	Horti-culture	Permanent crops	Grazing livestock	Granivores	Mixed cropping	Mixed livestock	Cropping-livestock		
	Absolute values									
<b>Strict agricultural</b>	<b>300,441</b>	<b>59,843</b>	<b>514,930</b>	<b>173,562</b>	<b>9,800</b>	<b>149,085</b>	<b>22,100</b>	<b>98,214</b>	<b>3,440</b>	<b>1,331,415</b>
<b>One secondary activity</b>	<b>43,251</b>	<b>11,195</b>	<b>66,145</b>	<b>52,745</b>	<b>2,490</b>	<b>21,665</b>	<b>9,190</b>	<b>13,008</b>	<b>-</b>	<b>219,689</b>
<i>Vegetable products transformation</i>	<i>12,345</i>	<i>7,196</i>	<i>19,365</i>	<i>17,498</i>	<i>-</i>	<i>4,391</i>	<i>2,682</i>	<i>359</i>	<i>-</i>	<i>63,836</i>
<i>Animal products transformation</i>	<i>7,665</i>	<i>122</i>	<i>1,710</i>	<i>21,632</i>	<i>1,107</i>	<i>3,368</i>	<i>1,973</i>	<i>5,390</i>	<i>-</i>	<i>42,967</i>
<i>Agri-tourism</i>	<i>1,729</i>	<i>-</i>	<i>4,137</i>	<i>6,005</i>	<i>-</i>	<i>1,785</i>	<i>20</i>	<i>1,378</i>	<i>-</i>	<i>15,054</i>
<b>Two or more secondary activities</b>	<b>9,363</b>	<b>3,329</b>	<b>22,806</b>	<b>6,260</b>	<b>2,500</b>	<b>5,696</b>	<b>160</b>	<b>11,165</b>	<b>-</b>	<b>61,279</b>
<i>With agri-tourism</i>	<i>334</i>	<i>2</i>	<i>2,874</i>	<i>1,574</i>	<i>-</i>	<i>256</i>	<i>18</i>	<i>615</i>	<i>-</i>	<i>5,673</i>
<b>Total</b>	<b>353,055</b>	<b>74,366</b>	<b>603,881</b>	<b>232,567</b>	<b>14,789</b>	<b>176,446</b>	<b>31,450</b>	<b>122,386</b>	<b>3,440</b>	<b>1,612,380</b>
	%									
<b>Strict agricultural</b>	<b>85.1</b>	<b>80.5</b>	<b>85.3</b>	<b>74.6</b>	<b>66.3</b>	<b>84.5</b>	<b>70.3</b>	<b>80.2</b>	<b>100.0</b>	<b>82.6</b>
<b>One secondary activity</b>	<b>12.3</b>	<b>15.1</b>	<b>11.0</b>	<b>22.7</b>	<b>16.8</b>	<b>12.3</b>	<b>29.2</b>	<b>10.6</b>	<b>-</b>	<b>13.6</b>
<i>Vegetable products transformation</i>	<i>3.5</i>	<i>9.7</i>	<i>3.2</i>	<i>7.5</i>	<i>-</i>	<i>2.5</i>	<i>8.5</i>	<i>0.3</i>	<i>-</i>	<i>4.0</i>
<i>Animal products transformation</i>	<i>2.2</i>	<i>0.2</i>	<i>0.3</i>	<i>9.3</i>	<i>7.5</i>	<i>1.9</i>	<i>6.3</i>	<i>4.4</i>	<i>-</i>	<i>2.7</i>
<i>Agri-tourism</i>	<i>0.5</i>	<i>-</i>	<i>0.7</i>	<i>2.6</i>	<i>-</i>	<i>1.0</i>	<i>0.1</i>	<i>1.1</i>	<i>-</i>	<i>0.9</i>
<b>Two or more secondary activities</b>	<b>2.7</b>	<b>4.5</b>	<b>3.8</b>	<b>2.7</b>	<b>16.9</b>	<b>3.2</b>	<b>0.5</b>	<b>9.1</b>	<b>-</b>	<b>3.8</b>
<i>With agri-tourism</i>	<i>0.1</i>	<i>0.0</i>	<i>0.5</i>	<i>0.7</i>	<i>-</i>	<i>0.1</i>	<i>0.1</i>	<i>0.5</i>	<i>-</i>	<i>0.4</i>
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

32. Income: Finally, if we consider both on-farm and off-farm income sources, we realise that in 82.5% of holdings the necessary flow of income to the agricultural households is guaranteed by off-farm sources (Tab. 7). Only 17.5% of the holdings receive income only from agricultural (strict agriculture and secondary) activities. This limited number of holdings is, probably, professional and specialist farmers.

33. A further result is that multi-activity holdings have less need of off-farm income sources than mono-activity holdings: The percentage of holdings with off-farm income reduce to 80.3% with one more activity and to 65.3% with two or more secondary activities. The minimum is reached by multi-activity farms with agri-tourism (62.5%).

**Tab. 7 – Number of holdings by kind of activity and income sources - Year 1999**

Kind of Activity	Income sources		Italy
	farming	Off-farm	
Absolute values			
<b>Strict agricultural</b>	<b>369,491</b>	<b>1,821,538</b>	<b>2,191,029</b>
<b>One secondary activity</b>	<b>46,427</b>	<b>188,780</b>	<b>235,207</b>
<i>Vegetable products transformation</i>	<i>11,686</i>	<i>63,506</i>	<i>75,192</i>
<i>Animal products transformation</i>	<i>8,211</i>	<i>19,059</i>	<i>27,270</i>
<i>Agri-tourism</i>	<i>2,172</i>	<i>6,940</i>	<i>9,112</i>
<i>Work to other holdings</i>	<i>7,185</i>	<i>15,337</i>	<i>22,522</i>
<b>Two or more secondary activities</b>	<b>19,078</b>	<b>35,964</b>	<b>55,042</b>
<i>With agri-tourism</i>	<i>742</i>	<i>1,238</i>	<i>1,980</i>
<b>Total</b>	<b>434,996</b>	<b>2,046,282</b>	<b>2,481,278</b>
%			
<b>Strict agricultural</b>	<b>16.9</b>	<b>83.1</b>	<b>100.0</b>
<b>One secondary activity</b>	<b>19.7</b>	<b>80.3</b>	<b>100.0</b>
<i>Vegetable products transformation</i>	<i>15.5</i>	<i>84.5</i>	<i>100.0</i>
<i>Animal products transformation</i>	<i>30.1</i>	<i>69.9</i>	<i>100.0</i>
<i>Agri-tourism</i>	<i>23.8</i>	<i>76.2</i>	<i>100.0</i>
<i>Work to other holdings</i>	<i>31.9</i>	<i>68.1</i>	<i>100.0</i>
<b>Two or more secondary activities</b>	<b>34.7</b>	<b>65.3</b>	<b>100.0</b>
<i>With agri-tourism</i>	<i>37.5</i>	<i>62.5</i>	<i>100.0</i>
<b>Total</b>	<b>17.5</b>	<b>82.5</b>	<b>100.0</b>

## V. CONCLUSION

34. A main reason for the growing demand and use of micro-data from sample surveys is that they are improving very fast in terms of reliability and easy supply of data for the analysis. Economic data at individual level are absolutely necessary for policy evaluation, in a context of complex agricultural policy actions by the European Union, differentiated by regions, new and old entry countries to the Union, products and type of holdings.

35. A principal result from the paper is that multi-activity and off-farm income support, in the wider perspective of multi-functionality of farm in rural areas, is a necessary element to increase holdings economic performance and to reach the minimum income to keep people in the agricultural sector and in rural areas. This is also a strategy for innovation, product diversification, social integration and environmental protection.

36. New agricultural activity and goods and services supplied may produce positive effect on rural development and local employment: agri-tourism; typical, high quality, organic farming; hydro-culture.

37. Holdings and agricultural households, at the start of the twenty-first century, live a serious risk of disappearance, as trends from the structural data and their turbulent environment indicate, but new opportunities arise from new activities an active CAP policy making.

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