

UNIVERSITY OF MODENA AND REGGIO EMILIA

**PHD SCHOOL IN AGRIFOOD SCIENCES, TECHNOLOGIES
AND BIOTECHNOLOGIES**

**DEVELOPMENT AND EFFICIENCY OF THE COMMON
AGRICULTURAL POLICY: A CASE STUDY**

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ABSTRACT

We have tried to evaluate, through a case study, the effectiveness of the new Common Agricultural Policy (CAP), starting in 2015, on farms in disadvantaged areas. The case study is an estate located in Pontremoli (MS) that has been abandoned for at least twenty years. The absence of an agricultural activity has made the pastures turn into bushy areas or woodland and has brought about the partial collapse of buildings, the decay of chestnut plantations and olive grove and the deterioration of the access road. The interventions needed to restore, where possible, the original conditions of the holding have been studied and assessed, while some hypothetical interventions to develop a new farm have been conceived. Afterwards we have tried to evaluate whether support to these interventions could be given by the first and second pillar instruments of the new CAP. In order to answer this question, we took into account, especially for the second pillar, the criteria and requirements established in the tenders of Tuscany 2007-2013 Rural Development Plan measures.

Concerning mountain areas, where cultivated allotments are particularly small, the analysis referred to the first pillar indicates that the annual direct payment would represent only a little income supplement. Specific payment to young farmers would be even less effective, whose amount would be really insignificant for our case study.

On the opposite, most interventions planned in the case study would be eligible for the second pillar. The contribution that the case study could receive is estimated at about 20% of the total investment; nevertheless priorities and obligations established by Tuscany Rural Development Plan, combined with long and complex procedures to obtain the authorizations for the project implementation would probably prevent support through the young farmers measure, the most profitable measure for the case study. Beside these aspects directly concerned with criteria and requirements for eligibility, access to credit instruments is another relevant issue. In fact purchasing the holding and implementing all the planned interventions represent a much greater amount than the value of the holding itself and, in the absence of an appropriate guarantee, it is impossible to have access to credit instruments. The project is therefore unrealistic, unless the farmer has his/her own capital to be invested.

Support to farms and to entrepreneurship is an essential instrument to keep viable disadvantaged or marginal areas, that are undergoing a gradual abandonment of

activities, with negative consequences on land maintenance. However, restoring an abandoned area is particularly complex and expensive, making it unprofitable and discouraging the most possible investors: the CAP alone is inadequate to the purpose of promoting and supporting initiatives to revitalize marginal areas similar to our case study. More national or local policies should then accompany Community policies, in order to be able to face the above-mentioned issues.

INTRODUCTION

The Common Agricultural Policy (CAP) is one of the most important policies carried out by the European Union. In 1957, the Treaty of Rome set up the European Economic Community (EEC) defining the main challenges of this organization, one of which was establishing a common policy for the agricultural sector, whose main objectives were: increasing productivity, ensuring a fair standard of living to agricultural people, stabilizing prices, guaranteeing certainty of supplies and ensuring reasonable prices to consumers.

The CAP is also one of the most economically considerable Community policies: in fact, up to 1980's, it absorbed more than 70% of the European budget. Now the CAP represents 38% of the budget, but the beneficiaries have more than doubled, due to the enlargement of the Community boundaries.

The CAP costs, its effects on international markets and relations, the distortions on the domestic market and among sectors, the consequences on consumers and on territory management are more and more drawing attention to the opportunity of supporting agriculture. Up to now, however, even if this policy has undergone a budget reduction, it is still implemented, also due to the fact that agricultural financial support persists in other important areas competing with the EU, such as the USA. Agricultural policy is also justified by the characteristics of agriculture itself: high production costs, high cost for land purchase or lease, uncertainty of product prices on agricultural markets, health issues and atmospheric hazards, time lag between cultivation and marketing of products, etc.

In addition to the above remarks, there has been an increasing awareness of a different agriculture role, involving not only production, but also maintenance and control of the territory. Notably, the lack of support and the consequent absence of protection on international markets would probably lead to a further reduction of cultivated land and to a progressive abandonment of marginal areas with lower productivity and profitability. In these areas agricultural activities play a social and economic role, as well as developing an effective function in managing the territory, maintaining the water network, avoiding forest deterioration, etc. Therefore support to farmers' income and to agricultural and forest sector is necessary not only with regard to food production, but also because it concerns public issues, such as environment protection, territory management, animal health, food security and quality. These are the reasons why rural development, that

pursues an aim of integrated development of rural areas, has become a major CAP objective (also integrating with other European policies).

Being part of this framework, our study wants to evaluate if the new CAP 2014-2020 programming, entering into force on 1st January 2015, can be considered an effective instrument to face the specific issue of rural marginal areas, and if it can appropriately meet the requirements of a particular farm typology. In order to answer this question, in the first chapter we will briefly summarize the CAP evolution, from its start in 1962 to the last 2007-2013 programming, through the subsequent reforms aimed at adapting the CAP to the markets evolution and to the society needs undergoing transformation. We will then investigate the new effects of agricultural activity on the society, how agriculture has been perceived more and more as a sector of public interest due to its impact on the territory and landscape, and in particular how the public debate has tried to develop the new CAP and its instruments for the 2014-2020 planning.

The evaluation of the new CAP effectiveness will be carried out through a specific case study (Chapter 2). In fact an applied approach to the subject is more functional to the general scope of our thesis. I am aware that this approach could limit the range of our analysis, leading to an underestimation of some issues and focusing on others. Nevertheless approaching directly real issues gives an exhaustive and tangible view of the farms and territories involved in the research.

On the other hand the case study is sufficiently representative of the issues we want to investigate and it can give an overall view of the analysis development, of the effectiveness of a specific policy and of the implementation of its instruments.

The analysis will start providing a description of the territory where the case study is located, the Lunigiana; then it will examine the current conditions of the case study, that is an estate located in a disadvantaged area where the agricultural activity has been abandoned for at least twenty years. All the interventions required to restore as much as possible the original state of the holding will be assessed and some interventions to develop a new farm will be suggested. Chapter 3 will examine whether the interventions for restoring the holding and realizing a new farm are supported by the rural development measures of the new CAP, and whether adequate support might be given by the first pillar in order to help the farm remaining active. Eligibility under the second pillar of the CAP

will be checked taking as a reference the criteria and requirements established by the measures guidelines of Tuscany Rural Development Plan for 2007-2013.

Starting from the analysis made on a specific case, overall considerations will be drawn from it, trying to give an exhaustive framework of the specific issues faced in the study.

1. AN OVERVIEW OF THE COMMON AGRICULTURAL POLICY

1.1 Evolution of the Common Agricultural Policy

In 2012 the Common Agricultural Policy achieved 50 years of life. In the course of the decades this policy has overcome new targets and challenges for both agriculture and rural areas. It is, therefore, worthwhile to run briefly through the main steps of CAP evolution and reforms.

Price policy – 1962 (European Economic Community of 6 countries)

The CAP was officially born in 1962, following the purposes listed in the Treaty of Rome¹. The first CAP brought about a policy based on price guarantees which aimed, through direct interventions on the market, at guaranteeing the same price for the same product in every Member State, while ensuring profitable for the farmer to continue to produce that product. With this purpose, a specific Common Organization of Markets (COMs) was created for every single agricultural product.

The implementation of price policy has implied, in a few years, a great increase in the productions safeguarded by the ECC, particularly in arable land and zootechnical productions. The increase was also due to the diffusion of some innovations, such as parasiticides and fertilizers of synthesis, which caused a rise in hectare yields.

The first socio-structural directives - 1972 (1973: EEC of 9 Countries)

In 1962 the Mansholt Plan was presented; it included some socio-structural interventions, such as: allowances for farms renewal, contributions for early retirement for senior farmers, socio-economical training in order to increase farmers skills, benefits to preserve mountain and disadvantaged areas agriculture². These actions, implemented through directives, were enforced in different times and ways by each Member State.

¹ This treaty, in 1957, sets up the birth of European Economic Community.

² Directives 72/159/EEC, 72/160/EEC, 72/161/EEC, 75/268/EEC.

The first elements of a CAP reform: expenditure control and introduction of elements of production control- 1980's (1981: EEC of 10 Countries)

In the 80's the problem of agricultural surpluses to be stored and disposed of became more and more serious (in 1987 it reaches its all-time peak). Therefore there were the first attempts to control expenditure and production in some fields, for example:

- implementation of a plan to withdraw sowables from production for at least 5 years³;
- early retirement⁴;
- implementation of production control policies, introducing the production quota system⁵.

Towards the start of a rural development policy: 1985 - 1991 (1986: European Union of 12 Countries)

Due to the serious problem of food surpluses new needs have arisen, then, along with price policy interventions, between 1985 and 1991 a new socio-structural policy was created, implemented through regulations, which replaced the 70's directives. This policy partly resumed the former, but it set up more complex interventions: the company restructuring, for example, was not anymore only made by enlarging its surface, but also through costs control, productive and varietal conversion and activity diversification⁶. Finally, the regulation 797/85, in order to achieve its targets, gave emphasis to the farmers skills and to the possibility to check farm return by means of instruments such as book-keeping and farm improvement programming.

The reform of socio-structural policies was followed, three years later, by the reform of structural funds. This reform, made up of some application rules (first of all regulation n. 2052/88), set up a totally new approach to both definition and management of cohesion and structural policy, that we can summarize in the following points:

- pluriannual intervention planning;
- focusing on some territorially localized priority objectives, towards which structural funds can be directed in a coordinated way (Rural Development

³ Reg. (EEC) No. 1094/88.

⁴ Reg. (EEC) No. 1096/88.

⁵ Cf. (EEC) Reg. (EEC) Nos. 822/87, 1442/88, 1200/90 e 2604/90.

⁶ Reg.(EEC) No. 797/85.

European Fund – RDEF, European Social Fund – ESF, European Funds for Agricultural Guarantee and Orientation – Section Orientation – FEGOA, Financial Instrument for the Orientation of Fisheries – IFOP;

- non-stop consultation between European Commission, State and Region as well as co-intervention to finance operational programs.

The Mac Sharry Reform – 1990's (1995: EU of 15 Countries)

1992 CAP reform, known as Mac Sharry Reform, introduced a series of interventions, among which:

- lowering indicative cereal price by 29%;
- lowering butter price by 5%;
- extending milk quota system up to 2000;
- establishing a direct income support to farmers producing cereals (compensatory support). This income compensation is calculated considering the farm arable land and the average unit yield of the area in which it is located. This allowance is supplied apart from real production.

These interventions were supported by other “helping measures”:

- agri-environment measures (Reg. (EEC) No. 2078/92) (integrated and biological production, extensive cultivation, fallow, etc.);
- early retirement (Reg. (EEC) No. 2079/92);
- measures for forestation development (Reg. (EEC) No. 2080/92).

This measures package set up a new dimension into agricultural policy, especially as far as environment was concerned, thus introducing the evolution of the next period.

Beside the environment aspect, this approach was highly concerned with product quality, through Regulations (EEC) No. 2081 (DOP, IGP) and No. 2082/91 (specificity certificate).

The LEADER approach was introduced within rural development (Reg. (EEC) No. 1989/93).

The LEADER programmes tried to start development attempts on a local scale, making use of innovative projects that can be transferred to other contexts. This approach, with some variations (LEADER II and LEADER +), will be repeated in the following periods (1994-99, 2000-2006 and 2007-2013).

The Cork Conference and Agenda 2000

In 1996 the European Conference on rural development took place in Cork, introducing the targets of rural development in the European Union: controlling rural exodus, fighting poverty, promoting employment and equal opportunities, facing requirements about quality, healthiness, safety, personal development and free time, as well as welfare improvement of rural people. These objectives were the main concern of the Regulation (EC) No. 1257/99, which gave rise to Agenda 2000 (political planning for the period 2000-2006).

In Agenda 2000 there were two key words for agriculture: competitiveness and multi-functionality. A more competitive agriculture was required, which might be less guaranteed by price support policies. At the same time the role of agricultural activity was bound to rural development, as the heart of a vital rural environment.

The Agenda 2000 Reform followed the direct payments introduced by Mac Sharry, but with a great news, the birth of the second pillar of CAP: the policy of rural development. In this way the rural development measures of the previous years were resumed to set up a single container, called second pillar of CAP, which is different from the first (measures for market and price support).

Dividing the CAP into two pillars is due to the fact that they are financed by two different budgets and also that they are subject to different regulations. While the first pillar is totally financed by EU budget, the second one is based on a multi-year planning which is co-financed by the member states.

After Agenda 2000, the market policy (COMs) remained the main pillar of CAP which will absorb 90% of common rural expenses (Borghini et al., 2003), while the structural policy, organised into structural funds and community actions, is deeply modified.

The market policy was only reformed for some COMs (sowables, beef, milk and wine) and included, broadly speaking, a progressive decrease in direct helps or in intervention price, or some specific quality and productive conditions (e.g. respecting specific ways of stock farming).

The new rural development regulation⁷ clarified some general strategic objectives (development of forestry and agriculture sector, improvement of rural areas competitiveness, protection of environment and rural heritage) as well as specific targets:

⁷ Reg. (EC) No. 1257/99

- improvement of farms holdings,
- improvement of processing,
- conversion of production processing and more attention to product quality,
- activities diversification,
- preserving the social fabric of rural areas,
- employment enhancement,
- protection and promotion of sustainable agriculture.

The system of rural development has been organized into axis and measures, in order to reach the established goals by means of different actions. Each Member State or Region carries out its Rural Development Plan which, analyzing the current situation of agriculture and food system and of the rural world (e.g. population, young people, old people, foreigners, employment and added value) points out both powerful and weak aspects and then finds out the needs and adopt specific measures of intervention for rural development, chosen among those available in the relevant axis. Farmers receive a financial support if they take part into some of the expected interventions, provided that they have the relevant requirements to participate to the programme and that they can respect the conditions required by the measures over time.

CAP middle-term revision: the Fischler Reform - 2003 (2004: EU of 25 countries)

After the first years of implementation of the Agenda 2000 programme, the CAP underwent a deep reform also called Middle-Term Reform (MTR) or Fischler Reform. The Reform applicable regulation is No. 1783/2003, which amended the text of Reg. (EC) No. 1275/99, and No. 817/2004 for a new regulation of rural development.

The targets of this revision were:

- strengthening agriculture competitiveness, making it more market-oriented;
- increasing rural development;
- promoting a higher product quality as well as environmental resources protection;
- promoting the implementation of compulsory standards for environment, food safety, animal health and welfare, agricultural and zootechnical practices which are compatible with the environment;
- making administrative and operational procedures easier.

The operational mechanisms that allow the pursuing of these targets were:

Decoupling

With this instrument the support to farms was no more linked to the quantity produced (that is calculated from the extent or livestock quantity): the allocation to the agricultural sector was granted in a completely new way, the farm single payment scheme (SPS). The funds were distributed according to a system based on hectare rights, also known as titles, and they could be calculated in two ways: the historical model and the regional model. The former takes into account the contributions received by the farmer in the relevant three years (2000-2002); the latter grants the titles with reference to the number of admissible hectares the farmer had in the first year of implementation of the single payment scheme. Italy chose the historical model.

The rights were no more linked to production activity, thus allowing the farmer to choose the best crops for the market and/or according to specific business strategies.

The fields of enforcement of the single payment (decoupling) may be found in annex VI of Reg. (EC) No. 1782/2003: sowables, rice, beef, milk (starting from 2006/2007), etc. For particular products, such as durum wheat and tobacco, some specific support systems were being kept.

Modulation

The modulation is an annual percentage reduction on all direct payments (first pillar). This financial resource quota of CAP first pillar is transferred to the second pillar (rural development).

The initial reduction applied to direct payments is 3% starting from 2005 and with a progression of 1% per year until 2007, and then 5% up to 2012.

With regard to the amounts coming from modulation, each Member State receives at least 80% of the amounts it produces. No reduction is applied to direct payments lower than EUR 5.000 per farm.

Conditionality

Conditionality established the farmer was required to fulfil specific operational criteria and to guarantee good environment and agronomic conditions, under pain of reduction of the single payment he has been granted.

Operational criteria were set out by a series of legislative acts concerning the following fields: public health regulations, animal and plant health, environment, animal welfare, work safety, animal identification and recording. Whereas good agronomic and environment conditions were concerned with some aspects of soil erosion and organic matter, which are listed in annexe IV of regulation (EC) No. 1783/2003.

Conditionality had already been introduced by Agenda 2000, but each member State could choose to apply it or not and also which requirements to take into account.

More elements of Fischler Reform:

- Reform of some COMs, such as the milk one, which establishes the removal of indicative price, the progressive reduction of intervention prices on butter (-24,9%) and on powdered skimmed milk (-15%) from 2004 to 2007, the restriction of quantities admitted to the intervention (Reg. (EC) No. 1787/2003), the extension of milk quota system up to 2015 (Reg. (EC) No. 1788/2003). In order to compensate the reduction of milk prices, the Regulation (EC) No. 1782/2003, concerning the system of income direct support, introduces an allowance on each breeder's quota, formed by a standard allowance and an additional bonus depending on national criteria.
- Farm advisory system: starting from 2007 the Member States set up an advisory system for farmers about land and farm management; this system is managed by one or more authorities or private organizations to which farmers can take part in as volunteers.

In 2005 the Fischler Reform started and already in the first year of application it brought about important effects on European and Italian agriculture and food system. In Italy, in 2005, the areas cropped with durum wheat decreased by about 500.000 hectares. Striking effects took place in the sugar sector: between 2006 and 2008 15 Italian sugar factories out of 19 closed down. Even the sectors of tobacco, industry tomato and wine were deeply affected by the reform (Frascarelli , 2009).

2007-2013 Programming (2008: EU of 27 countries)

At the end of CAP middle-term reform, works on 2007-2013 financial planning began, leading to the approval of Reg. (EC) No. 1698/2005 on rural development in September

2005 and to the applicative Regulation No. 1974/2006 in December 2006. Both regulations were representing the legal framework which regulated the definition and the organization of the new programmes for rural development, not only for the 15 Member Countries, but also for the new ones that have meanwhile entered the European Union. In fact The European Union has opened to twelve new members: Estonia, Latvia, Lithuania, Czech Republic, Slovakia, Slovenia, Hungary, Poland, Malta and Cyprus with effect from May 2004 and Bulgaria and Romania from January 2007⁸.

In order to finance the new CAP, two funds were purposely created: European Agricultural Guarantee Fund (EAGF), intended to finance market measures and other measures, and European Agricultural Fund for Rural Development (EAFRD) destined to finance programmes of rural development⁹.

The new policies of rural development focused on four main axis, each of them giving rise to a series of specific measures:

- Axis 1: improving the competitiveness of sectors (agriculture e forestry);
- Axis 2: improving the environment and the countryside;
- Axis 3: economic diversification and life quality in rural areas;
- Axis 4: improving the local governance and exploitation of endogenous resources of rural areas (by means of a LEADER approach).

The plan starts with Common Strategic Orientations, continues on a national level (through the National Strategy Plan) and finally at a regional level (through the Rural Development Plan).

In 2007 there was a simplification of the Market Common Organizations brought about by Reg. (EC) No. 1234 of 2007. Since the CAP was introduced, the European Council has in fact established twenty-one COMs, for products or groups of products, each of them being ruled by specific basic regulations of the Council. In accordance with this rule all basic regulations of the single COMs have been unified in one legal framework.

Measures for 2003-2013 Programming

In 2007-2013 programming two new measures, partly already put forward by the Fischler Reform, have been introduced, in axis 1. These two measures were aimed to stimulate the

⁸ On July 1st 2013 Croatia became the 28th member of the EU.

⁹ Reg. (EC) No. 1290/2005.

utilization of advisory services and to finance cooperation between subjects of agriculture and food chains for the development of new products, processes and technologies (chains' projects).

In Axis 2 there is a new measure establishing an allowance to those farmers included in Natura 2000 Network¹⁰ areas and in areas concerned with Water Directive¹¹ (Dir. 2000/60/EC).

In Axis 3 two measures have been added: a measure for training and informing operators in rural areas and one for skills acquisition and local projects animation. All measures of rural development 2007-2013 are summarized in Table 1.

Table 1 List of measures of rural development 2007-2013.

| AXIS 1 – Improving the competitiveness of agriculture and forestry sectors | |
|---|---|
| MEASURE | TITLE OF THE MEASURE |
| 111 | Vocational training and information actions |
| 112 | Setting up of young farmers |
| 113 | Early retirement |
| 114 | Use of advisory services |
| 115 | Setting up of management, relief and advisory services |
| 121 | Modernisation of agricultural holdings |
| 122 | Improvement of the economic value of forests |
| 123 | Adding value to agricultural and forestry products |
| 124 | Cooperation for development of new processes and technologies in the agriculture and food sector and in the forestry sector |
| 125 | Infrastructure related to the development and adaptation of agriculture and forestry |
| 132 | Participation of farmers in food quality schemes |
| 133 | Information and promotion activity |
| 134 | Semi-subsistence farming |
| 135 | Producer groups |

¹⁰ Organized system of areas destined to the preservation of biodiversity in the territory of the European Union and in particular to the safeguard of a series of habitats and animal species and rare and endangered plants. Natura 2000 Network arises from the two Common Directives “Birds” (1979) and “Habitat” (1992), which are deeply innovating about nature preservation. Not only simple protection of plants, animals and areas, but organized preservation of habitats and species. The location of sites in the Italian territory has been realized by each Region with the coordination of the Ministry of Environment.

¹¹ The Water Directive sets up a framework for the Community to take action about waters.

| Axis 2 – Improving the environment and the countryside | |
|---|--|
| MEASURE | TITLE OF THE MEASURE |
| 211 | Natural handicap payments in mountain areas and payments in other areas with handicaps |
| 213 | Natura 2000 payments and payments linked to Directive 2000/60/EC |
| 214 | Agri-environment payments |
| 215 | Animal welfare payments |
| 216 | Non-productive investments |
| 221 | First afforestation of agricultural land |
| 223 | First afforestation of non-agricultural land |
| 224 | Natura 2000 payments |
| 225 | Forest-environment payments |
| 226 | Restoring forestry potential and introducing prevention actions |
| 227 | Non-productive investments |

| Axis 3 – The quality of life in rural areas and diversification of the rural | |
|---|---|
| MEASURE | TITLE OF THE MEASURE |
| 311 | Diversification into non-agricultural activities |
| 312 | Support of business creation and development |
| 313 | Encouragement of tourism activities |
| 321 | Basic services for the economy and rural population |
| 323 | Conservation and upgrading of the rural heritage |
| 331 | Training and information |
| 341 | Skill acquisition, animation and implementation |

| Axis 4 - LEADER | |
|------------------------|---|
| MEASURE | TITLE OF THE MEASURE |
| 411 | Implementing local strategies through the other measures defined for the other axis |
| 421 | Inter-territorial and transnational cooperation |
| 431 | Running the local action group, acquiring skills and animating the territory |

Interventions established by the measures have been distinguished according to the territory, which is classified as areas A (urban centres), B (rural areas exploited by intensive and specialised farming), C (intermediate rural areas), and D (rural areas with

overall problems of development). Areas C and D are included in the Leader territories (Axis 4).

Member States may choose, in the definition of the Rural Development Plans, the measures which are more consistent with their intervention strategy.

CAP Health Check (2009)

The reform of CAP of 2009, called Health Check, established new common strategic guidelines for rural development, adding to the existing priorities¹² six “new challenges”:

1. climate changes;
2. renewable energies;
3. water management;
4. biodiversity;
5. measures accompanying restructuring of the dairy sector;
6. innovation linked to the priorities mentioned in points 1.), 2.), 3.) and 4.).

Some of the changes introduced by the reform are the following:

- ❑ increasing the compulsory modulation from 5% to 7% in 2009, up to 10% in 2012. Reductions on direct payments have increased by four percentage points for amounts greater than 300.000 euros¹³;
- ❑ transferring funds coming from modulation increase to rural development linked to the six new challenges¹⁴;
- ❑ intervention on market measures by abolishing the compulsory set-aside and by diminishing the importance of the intervention system on markets, which becomes less and less a guarantee for production outlets and more and more a safety network for emergency situations¹⁵;
- ❑ increasing the milk quota system¹⁶ in view of its abolition within 2015 in conformity with sub. 1 of art. 66 of Reg. (EC) No. 1234/2007;
- ❑ greater impulse to uniformity of payments giving the Member States the possibility to “regionalize” or “getting closer”¹⁷ for the Titles determination.

¹² Art. 3.4 bis of Decision 2009/61.

¹³ Reg.(EC) No. 73/2009, art. 7.

¹⁴ Reg.(EC) No. 73/09, art. 9, sub 4 and Reg. (EC) No. 1698/2005, art. 16 bis.

¹⁵ Reg. (EC) No. 73/2009, art. 33, sub. 3.

¹⁶ Reg. (EC) No. 248/2008.

¹⁷ Reg. (EC) No. 73/09, section. 1, chapter 2.

1.2 The new CAP 2014-2020

On the 20th December 2013, the regulations¹⁸ defining the new CAP for the period 2014-2020 have been issued, almost three years after the introduction of the objectives of CAP post 2013¹⁹. The new policy will enter into force on the 1st January 2015. For the first time in the history of the European Union, the CAP approval has been achieved through the co-decision between the Parliament and the Council and with the assistance of the European Commission, as stated by the Treaty of Lisbon.

The main objectives of the reform are to make the CAP greener and more efficient, with a more equitable distribution of income support to farmers across the Union. Following the Multiannual Financial Framework (MFF) agreement, the CAP budget for the 2014-2020 period amounts to EUR 408,31 billion, 38% of the overall EU budget. The first pillar of the CAP (direct income support and market-related expenditure) will take up EUR 312,73 billion (76,6% of the overall budget of the CAP) and the second pillar (rural development policy) will take the remaining EUR 95,58 billion (23,4%).

In comparison with the previous programming, the agricultural budget has been reduced by more than 13% for the first pillar and by 11% for rural development.

Italy will be entitled to receive almost EUR 27 billion for direct payments and EUR 10,4 billion for rural development (see tables 1 and 2).

¹⁸ Reg. (EU) No. 1305/2013 on support for rural development, Reg. (EU) No. 1306/2013 on the financing, management and monitoring of the common agricultural policy, Reg. (EU) No. 1307/2013 establishing rules on direct payments to farmers, Reg. (EU) No. 1308/2013 establishing a common organisation of the markets in agricultural products and Reg. (EU, EURATOM) No. 1311/2013 establishing the multiannual financial framework, Reg. (EU) No. 1303/2013 laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund.

¹⁹ Communication from the Commission to the European Parliament, the Council, the European Social and Economic Committee and the Committee of the Regions, The CAP towards 2020: meeting the food, natural resources and territorial challenges of the future, 18th November 2010.

Table 2 National ceilings for direct payments.

| Year | Amount |
|------------------------|-------------------------|
| 2014 | € 3.953.400.000 |
| 2015 | € 3.902.039.000 |
| 2016 | € 3.850.805.000 |
| 2017 | € 3.799.540.000 |
| 2018 | € 3.751.937.000 |
| 2019 | € 3.704.337.000 |
| 2020 | € 3.704.337.000 |
| Total 2014-2020 | € 26.666.395.000 |

Table 3 Allocation of financial resources to Italy for Rural Development 2014-2020.

| Year | Amount |
|------------------------|-------------------------|
| 2014 | € 1.480.213.402 |
| 2015 | € 1.483.373.476 |
| 2016 | € 1.486.595.990 |
| 2017 | € 1.489.882.162 |
| 2018 | € 1.493.236.530 |
| 2019 | € 1.496.609.799 |
| 2020 | € 1.499.799.408 |
| Total 2014-2020 | € 10.429.710.767 |

The main changes of the first pillar*The active farmer*

In order to avoid the dispersal of common resources and, therefore to make the public intervention more effective, the legislator has paid special attention to the allocation of funds and mainly to their correct destination, introducing the definition of active farmer. A “black list” of activities has been established, whose businesses cannot receive direct payments, such as airports, railway services, waterworks, real estate services, permanent sports and recreational grounds. Besides, Member States can decide to add other activities to this list.

The definition of active farmer can however be applied to those activities which, although belonging to the black list, can anyway satisfy some conditions concerning the amount of direct payments received and can demonstrate that their principal business consists of exercising an agricultural activity²⁰. Member States may otherwise decide that no direct payments are to be granted to those persons or companies whose agricultural activities form only an insignificant part of their overall economic activities and/or whose principal activity or company objects do not consist of exercising an agricultural activity.

Minimum requirements for receiving direct payments

Member States may decide not to grant direct payments to a farmer if the total amount of direct payments in a given calendar year is less than EUR 100 or if the eligible area of the holding is less than one hectare. Member States may adjust the above thresholds in order to take account of the structure of their agricultural economies: Italy has a maximum financial threshold of EUR 400 and a physical threshold of 0,5 hectares.

Direct payments

The single payment scheme is replaced by the following:

- a basic payment for farmers;
- a payment for farmers observing agricultural practices beneficial for the climate and the environment (green payment or *greening*);
- a payment for young farmers starting their agricultural activity.

Member States must necessarily adopt one of these three typologies of direct payment.

Member States may also choose to adopt the following additional supporting typologies:

- a redistributive payment;
- a payment for farmers in areas with natural constraints;
- a coupled support scheme;
- a simplified scheme for small farmers.

²⁰ In particular, subparagraph 2 of article 9 of Reg. (EU) No. 1307/2013 establishes that “a person or group of persons falling within the scope of the first or second subparagraph shall, however, be regarded as an “active farmer” if it provides verifiable evidence, in the form that is required by Member States, which demonstrates any of the following: a) that the annual amount of direct payments is at least 5% of the total receipts that it obtained from non-agricultural activities in the most recent fiscal year for which such evidence is available; b) that its agricultural activities are not insignificant; c) that its principal business or company objects consist of exercising an agricultural activity”.

All (compulsory and voluntary) payments come from the national ceiling of each Country in a calendar year. What is peculiar about the new scheme of direct payments is that Member States will have to choose, within their prefixed percentages (see Fig. 1), what share they want to allocate for each kind of payment. Only the green payment is financed with a fixed quota of 30% of the national ceiling. The basic payment will be financed with the remaining budget, that is with those financial resources available after all other payments have been granted.

Figure 1 Typologies of direct payments.

| COMPULSORY COMPONENTS | VOLUNTARY COMPONENTS |
|--|---|
| Basic payment (18% - 68%) Greening (30%) Young farmers payment (up to 2%) | Natural constraint payment (up to 5%) Copled payment (up to 15%) Redistributive payment (up to 30%) |
| As an alterntaive and replacing all (voluntary) payment components: small farmers scheme | |

Source: Pantini D., 2013.

Basic Payment and internal convergence process

Due to the introduction of the single payment scheme (see Decoupling at Chapter 1.1), the adoption of the historical model in allocating payment entitlements has brought to great differences in the support given per hectare. The new CAP has the objective to ensure a more equal distribution of direct payments among farmers, reducing the link with historical factors. In order to reach this goal, the current payment entitlements for those Countries implementing the single payment scheme based on historical references should expire on 31st December 2014. The amounts of the new payment entitlements will be re-calculated according to the national ceiling. Each new entitlement will have to converge, within 2019, towards a uniform value for every farmer, corresponding to the national or regional average. Should a Member State adopt the regional convergence, the territory to be chosen as a region will be determined on the basis of agronomic and socio-economic characteristics, of the regional agricultural potential or of the institutional and administrative structure. In order to determine the payment entitlements, the national ceiling will be divided between the designated regions. When implementing the internal convergence scheme, Member States may choose one of the following three procedures:

adopting a scheme of uniform unit value within 2015 (annual national ceiling/eligible hectares in 2015), adopting the uniform unit value after 2015 but within 2019 (progressive reduction from 2015, reaching the uniform unit value in 2019) or gradually approaching more uniform levels, although different from those they would reach through a total convergence (partial convergence).

As indicated by Pupo D'Andrea (2013), with the first scheme Member States calculate the unit value of payment entitlements (for 2015 and for the following years) by dividing the national (or regional) ceiling for the basic payment by the number of payment entitlements in 2015, thus levelling the payments already in the first year.

With the second scheme, Member States may achieve the uniform payment in 2019 at the latest (in 2019 they ask for payments they will receive in 2020), through progressive steps and differentiating the value of payment entitlements year after year on the basis of their initial value.

By way of derogation from the uniform unit value, the third above-mentioned scheme allows the Member States currently implementing the single payment procedure based on historical model to reach more homogeneous payments without adopting the uniform unit value. In this case a Member State may decide that payment entitlements with an initial unit value that is lower than 90% of the national (or regional) unit value in 2019, have, within 2019, their unit value increased by one third of the difference between their initial value and 90% of the national(or regional) value in 2019. Member States may decide to set this percentage at a level higher than 90% but not above 100%.

Within 2019, therefore for the payments that will be received in 2020, no payment entitlement will have a unit value lower than 60% of the national (or regional) unit value in 2019. In order to finance the decrease in the value of payment entitlements that are below the average, when the payment entitlements have an initial unit value higher than the national or regional unit value in 2019, the difference between their initial unit value and the value in 2019 will be decreased on the basis of objective and non-discriminative criteria to be determined by each Member State. Member States may decide how to decrease the value of payment entitlements which are above the average. Nevertheless a Member State may decide to fix the maximum decrease of the initial value at 30%. Whenever, in order to reach the minimum 60% threshold of payment entitlements, there

is a loss higher than 30% of the initial value, that 60% threshold may be modified as a consequence.

Green Payments

Farmers entitled to receive a basic payment must observe the agricultural practices beneficial for the climate and the environment, on all the eligible area of their farm.

The agricultural practices they must observe are the following: crop diversification, maintaining existing permanent grassland and pasture, having ecological focus areas.

Organic farms are entitled ipso facto to the green payment.

Crop diversification is compulsory for farms covering more than ten hectares of arable land: between 10 and 30 hectares it must be cultivated at least with two crops, over 30 with three crops. However there are some exceptions as in case of cultivation of crops under water, production of grasses or other herbaceous forage covering more than 75% of the Utilised agricultural area (UAA), etc.

Ecological focus areas are applicable to farms where arable land covers more than 15 hectares. In these farms at least 5% of their arable land must be employed for Ecological Focus Areas. Member States must determine what elements are to be considered ecological focus areas, such as land lying fallow, terraces, landscape features, including such features adjacent to the arable land, buffer strips, agro-forestry areas that receive or have received supports, strips along forest edges, areas cultivated with nitrogen-fixing crops (e.g. legumes).

Differently from crops diversification, it is not possible to consider ecological focus areas those areas where the cultivation of grasses or forage covers more than 75% of SAU or in case of crops under water.

The failure to respect the above practices implies the reduction of the green payment and, from 2017, a reduction of the basic payment.

Member States may adopt practices similar to the green ones: they are concerned with measures of the new or the previous rural development, or with national/regional environment certificate schemes that are not subject to the compulsory standards of conditionality and that aim at pursuing goals linked to water and ground quality, to biodiversity, to landscape preservation and to climate change mitigation.

Redistributive payment

Member States may decide to grant up to 30% of their national ceiling to increase the support to farmers, that will not be higher than 65% of the payment entitlements and will not exceed 30 hectares for each farm.

Payments for areas with natural constraints

Member State may decide to apply voluntarily this payment to those farmers whose holdings are fully or partially situated in areas with natural constraints designated by each Member State within the rural development.

Like all other direct payments, this payment is granted annually per eligible hectare and it is calculated by dividing the maximum amount of these payments (up to 5% of the national ceiling) by the number of eligible hectares in the areas with natural constraints.

Voluntary coupled support

Member States may decide to grant a voluntary coupled support to some sectors (cereals, protein crops, milk and milk products, beef, etc.). Coupled support may be granted to those sectors and/or regions where specific types of farming or specific agricultural sectors are important for economic and/or social and/or environmental reasons and that undergo certain difficulties.

Member States may grant to this payment up to 8% of their national ceiling, but this percentage can reach up to 13% for some Countries²¹.

Small farmers scheme

Member States may establish a simplified scheme for small farmers, who may choose to adopt it or not. Payments under the small farmers scheme replace all the other payments (basic payment, greening, young farmers supports, etc.). As a consequence, farmers adopting the small farmers scheme will be exempted from the greening procedure, but

²¹ Member States may decide to increase this percentage, as established by article 53 of Reg. (EU) No. 1307/2013 if, during one year between 2010 and 2014, they have (like Italy) allocated more than 5% of their direct payments for financing the coupled payments (in accordance with art. 68 – paragraph 1, letter a), points i) to iv), and letters b) and e), payments for cattle, sheep and goats, fruit production, and payments ex Title IV, except cotton, of Reg. (EU) No. 73/99). Both the percentages may be increased by up to two percentage points for those Member States which decide to use 2% of their national ceiling to support protein crops.

they must respect conditionality, although with less restrictive obligations. The support must be between EUR 500 and EUR 1.250. In this case too, the regulation sets out many possibilities and derogations for Member States with regard to implementation, calculation and conditions of the payment scheme.

Flexibility between pillars

Member States may decide to transfer a certain percentage granted for direct payments of their national ceiling to the second pillar and vice versa. In the previous programming the transfer was only possible from the first to the second pillar. The percentages of transfer may vary annually.

External convergence

Member States with direct payments lower than 90% of the Union average will have to decrease by one third the gap between their current level and this level, with all Member States arriving at a minimum level by financial year 2020. This convergence will be financed proportionally by all Member States that have direct payment levels above the Union average level.

In order to ensure a more equal distribution of support, and to start standardising the support scheme all over the EU territory, Member States that have an average hectare support which is higher than the EU average will have to help increasing the average payment of those States below the 90% of the average and help them to recover a third of the difference in six years.

Common Organizations of the Market

Concerning the COMs, unlike what was initially established, there won't be a liberalization of vine plantation for the wine COM, but a new authorisation system starting in 2016. With regard to sugar, the quota system is extended up to 30/09/2017.

The new challenges of the second pillar

The targets of the rural development policy, which are part of the implementation of Europe 2020 strategy²², are pursued through six priorities (see Fig. 2), which outline the relevant thematic objectives of the Common Strategic Framework²³.

Priorities will be pursued through the adoption of national or regional (like Italy) programmes. Each programme will concern at least four priorities.

Figure 1 Priorities of rural development referred to in Article 5 of Reg. (EU) No. 1305/2013.

| | PRIORITIES FOR RURAL DEVELOPMENT | PRIORITIES DETAILS |
|----------|---|--|
| 1 | Fostering knowledge transfer and innovation in agriculture, forestry, and rural areas | a) fostering innovation, cooperation, and the development of the knowledge base in rural areas; b) strengthening the links between agriculture, food production and forestry and research and innovation, including for the purpose of improved environmental management and performance; c) fostering lifelong learning and vocational training in the agricultural and forestry sectors. |
| 2 | Enhancing farm viability and competitiveness of all types of agriculture in all regions and promoting innovative farm technologies and the sustainable management of forests | a) improving the economic performance of all farms and facilitating farm restructuring and modernisation, notably with a view to increasing market participation and orientation as well as agricultural diversification; b) facilitating the entry of adequately skilled farmers into the agricultural sector and, in particular, generational renewal. |
| 3 | Promoting food chain organisation, including processing and marketing of agricultural products, animal welfare and risk management in agriculture | a) improving competitiveness of primary producers by better integrating them into the agri-food chain through quality schemes, adding value to agricultural products, promotion in local markets and short supply circuits, producer groups and organisations and inter-branch organisations; b) supporting farm risk prevention and management. |

²² Policy strategies of the EU for 2020 are outlined in the communication from the Commission of 03.03.2010 "Europe 2020: for a smart, sustainable and inclusive growth".

²³ The Common Strategic Framework establishes strategic objectives in order to help the programming process and the sectoral and territorial coordination of the interventions of European Union. The thematic objectives of the CSF are set out in article 3 of Reg. (EU) No. 1303/2013. Each European fund (in this case the fund for rural development, EAFRD) must translate the thematic objectives into specific priorities.

| | | |
|---|--|---|
| 4 | Restoring, preserving and enhancing ecosystems related to agriculture and forestry | a) restoring, preserving and enhancing biodiversity, including in Natura 2000 areas, and in areas facing natural or other specific constraints, and high nature value farming, as well as the state of European landscapes; |
| | | b) improving water management, including fertiliser and pesticide management; |
| | | c) preventing soil erosion and improving soil management. |
| 5 | Promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors | a) increasing efficiency in water use by agriculture; |
| | | b) increasing efficiency in energy use in agriculture and food processing; |
| | | c) facilitating the supply and use of renewable sources of energy, of by-products, wastes and residues and of other non food raw material, for the purposes of the bio- economy; |
| | | d) reducing green house gas and ammonia emissions from agriculture; |
| | | e) fostering carbon conservation and sequestration in agriculture and forestry; |
| 6 | Promoting social inclusion, poverty reduction and economic development in rural areas | a) facilitating diversification, creation and development of small enterprises, as well as job creation; |
| | | b) fostering local development in rural areas; |
| | | c) enhancing the accessibility, use and quality of information and communication technologies (ICT) in rural areas. |

Thematic sub-programmes

Member States may include in their rural development programmes thematic sub-programmes to meet specific needs in areas of particular importance. Thematic sub-programmes may for instance concern young farmers, small farms, mountain areas, the creation of short supply chains, the restructuring of agricultural sectors which have a strong impact on the development of rural areas. In order to increase the efficient intervention of certain thematic sub-programmes, Member States may be allowed to fix higher support rates for certain operations covered by those thematic sub-programmes.

European Innovation Partnership network

A European Innovation Partnership (EIP) network is put in place, with the following aims: facilitating the exchange of expertise and good practices, establishing a dialogue between farmers and the research community and facilitating the inclusion of stakeholders in the

knowledge exchange process. Operational groups are a pivotal element of the EIP for agricultural activity and sustainability and they are constituted by concerned subjects such as farmers, researchers, advisers and agrifood entrepreneurs. Member States may decide, within their programmes, the amount of support to the operational groups.

The LEADER approach

The LEADER approach to local development is confirmed as an effective instrument in promoting the development in rural areas. The LEADER approach fulfils the multi-sectoral needs for endogenous rural development through its bottom-up approach. Its application is compulsory for all rural development programmes at national and/or regional level.

Partnership Agreement

In order to implement the rural development policy, each Member State must put forward a Partnership Agreement (PA) through which the elements of the Common Strategic Framework are transferred to a national context. In the period 2007-2013 the planning was on the contrary based on two documents: the National Strategic Plan and the National Strategic Framework for cohesion policies.

The horizontal regulation

The different rules on the financing, management and monitoring of the CAP are grouped together in a single instrument, the Regulation (EU) No. 1306/2013. This regulation, known as “horizontal”, gathers all relevant rules for all CAP instruments, including conditionality, paying agencies, national advisory system for farmers. A reserve for crisis in the agricultural sector is also activated in this regulation. This reserve is intended to provide additional support for the agricultural sector in the case of major crises affecting the agricultural production or distribution. The total amount of this reserve is EUR 2,8 billion and it is financed by applying an annual reduction to direct payments.

Some remarks about the new CAP

In the communication “The Cap toward 2020”, set out by the European Commission, new strategies for the new agricultural policy had been presented. This document emphasized the importance of some elements such as a “greener” and more equally distributed first

pillar and a more effective and efficient rural development policy. Now, given the definite framework of the new CAP, we can make the following remarks.

Equity

The convergence scheme may decrease the differences among the values of the basic payments, nevertheless the several voluntary supports and the different possibilities Member States have at their disposal to use the national ceilings sometimes create different economic supports in the same agricultural sectors of different Countries. This mechanism has the effect of making fundamental divergences from the original objective of distributing more equally the economic resources.

Greener Agriculture

In comparison with the initial ones, the compulsory green practices have become more flexible, but also weaker, due to the introduction of different derogations, of increased thresholds and of the equivalence principle. According to Vanni (2013), only 3,8% of farms are under an obligation to crop diversification, 15,7% to maintain permanent grassland and 5,1% to have ecological focus areas in their holdings²⁴.

Table 4 Effect of greening in Italian farms.

| | % Farms | |
|--|---------|------------------|
| Crop diversification | 3,8 | 28 % arable land |
| Maintaining permanent grassland and pasture | 15,7 | 24 % UAA |
| Ecological focus area | 5,1 | 48 % arable land |

Considering these data, it is clear that the obligations coming from greening will lie, at least in Italy, on a small minority of farms (see Table 3). The rest of the farms, that are not forced to apply these practices, will receive the payments without any further obligation, causing different treatments among farmers. Moreover, measuring the ecological focus areas when submitting applications for payments and the following controls will overload the bureaucratic burden.

²⁴ Vanni F., 2013, Il possibile impatto dell'applicazione del greening in Italia, *Agriregioneuropa*, Anno 9 No. 35, p. 29-32. This study has considered data provided by the 6th Agriculture Census.

Efficiency and effectiveness

Many choices must be taken by Member States in the first pillar: the objective of simplification has not been pursued. The exceptions to the general principles are so many that they even make it difficult to understand the regulations. A more incisive simplification has on the contrary been achieved in rural development, eliminating the four axes (replaced by six priorities coupled to different combining measures) and establishing a single programme (Partnership Agreement).

Further remarks

Supporting young farmers is one of the main targets of the new CAP. As previously described, the first pillar fixes up to 2% of the national ceiling to support young farmers. According to Canali and Gjika (2012), payments to young Italian farmers may be estimated between EUR 51 and 59 per eligible hectare²⁵. In the rural development the payment for the first settlement of young farmers amounts up to EUR 70.000, instead of EUR 55.000 of the previous planning. These aspects suggest that the generational turnover and young farmers settlements are more easily attainable within the second pillar.

One of the main challenges of the new CAP is the attempt to allocate payments to active farmers. Member States have been delegated by the European Union to determine this subject, and consequently which farmers are entitled to receive the Community funds. Therefore Italy must decide which parameters have to be considered for this important definition: Professional Farmers (but this, according to Arzeni (2013), would disqualify 97% of farmers from receiving the support), direct farmers who have a subscription to INPS or, for example, farms joining the Chamber of Commerce.

After three years of institutional and political work, we can after all say that the new CAP has not yet been completed. Major decisions have been left to Member States which, within 1st August 2014, will have to choose.

²⁵ The study carried out by Canali and Gjika considered a ceiling of EUR 3.841,6 million, while the National ceiling established for 2019 in Annexe II of Reg. (EU) No. 1307/2013 is EUR 3.704 million.

2. THE CASE STUDY

2.1 The rural territory in Lunigiana

As better described in chapter 2.2, our case study is an estate in Pontremoli, the most northern municipality of the Tuscany region, located in the province of Massa Carrara. Pontremoli is part of Lunigiana, a territory which includes thirteen more municipalities situated in middle and high Val di Magra (Aulla, Bagnone, Casola in Lunigiana, Comano, Filattiera, Fivizzano, Fosdinovo, Licciana Nardi, Mulazzo, Podenzana, Tresana, Villafranca in Lunigiana e Zeri).

The Lunigiana landscape is mainly characterized by mountains, piedmont areas and wide stretches of wooded country. It has a total woodland area of 70.560 hectares²⁶. It is constituted by different species such as turkey oak, hornbeam and beech, among which the chestnut tree predominates.

A marginal area

Lunigiana has experienced an important rural exodus: from 1950's to 1980's a decrease of population by 28,9% has occurred (Berti, 2009). From the 80's onward the exodus intensity has weakened and in recent years some municipalities have even recorded positive rates of population growth. However, between 1984 and 2004, Lunigiana underwent a reduction of resident population by 7,08% (Berti, 2009). This phenomenon brought about the abandonment of land, of agricultural practices and of villages and caused the ageing of the resident population. Besides depopulation, other elements are the sign of marginality²⁷ of this rural area: unemployment rate (9,02%)²⁸, which is higher

²⁶Regional Forest Inventory, 2005 in *Piano Locale di Sviluppo Rurale 2007-2013*, 2011, Province of Massa Carrara, p. 8.

²⁷ Marginal rural area: local economic system that, due to an intense depopulation process in the last three decades, is characterized by a strong ageing of the population and whose unemployment rate is high and whose agriculture employment rate is important as a consequence of other economic sectors' weakness (Bacci, 2002 in Donato R. et al., 2011, *Sistemi locali a forte connotazione rurale: il Chianti e la Garfagnana*, Rete Rurale Nazionale.)

²⁸ ISTAT, 2001 in *Piano Locale di Sviluppo Rurale 2007-2013*, 2011, Province of Massa Carrara, p. 15.

than the regional average (4,22%)²⁹ and agriculture employment rate (4,36%)³⁰, which is also higher than the regional average (4,09%)³¹.

Zoning according to Common Agricultural Policy

The Province of Massa Carrara, drawing up its Local Rural Development Plan (*Piano Locale di Sviluppo Rurale* - PLSR), has divided the Lunigiana territory into zone C1 (intermediate rural areas in transition) for the municipality of Aulla, zone C2 (declining rural areas) for the municipalities of Fosdinovo, Podenzana, and Tresana and into zone D (rural areas with overall problems of development)³² the remaining ones, therefore also including Pontremoli.

With regard to CAP zoning, the Lunigiana territory falls almost entirely within disadvantaged areas³³.

The agricultural sector

The characteristics of Lunigiana agricultural fabric emerge from the 6th agriculture General Census. The number of farms in Lunigiana territory is 2.766 units, for a Total Agriculture Area (TAA) of almost 24.111 hectares and an Utilised Agricultural Area (UAA) of about 9.413 hectares³⁴. The number of units involved in the agriculture sector has decreased by almost 60% in comparison with 2000; on a regional level there has been a 40% decrease while on the national level a 32,4%³⁵.

Lunigiana is characterized by a great reduction of TAA (-38,36%) and of UAA (-42,44%). This reduction, similar to the one occurred in the province (-48,40% of TAA and - 47,35%

²⁹ ISTAT, 2001.

³⁰ Author's review on data of Province of Massa Carrara.

³¹ ISTAT, 2001 in *Piano Locale di Sviluppo Rurale 2007-2013*, 2011, Province of Massa Carrara, p. 28.

³² Zoning introduced in the rural development 2007-2013. Cf. chapter 1.1.

³³ Sub 1, art. 3 Reg. (EEC) No. 268 defines disadvantaged areas as "mountain areas in which agriculture activity is necessary to ensure the natural environment preservation, especially to protect it from erosion or to meet tourism requirements, and other areas in which a minimum population level or the preservation of natural environment are not guaranteed".

³⁴ <http://dati-censimentoagricoltura.istat.it/#> consulted on 29/12/2013.

³⁵ Author's review on data <http://dati-censimentoagricoltura.istat.it/#> consulted on 29/12/2013.

of UAA) is on the contrary different from both regional data (-16,82% of TAA and -11,83% of UAA), and national data (-9% of TAA and - 2,5% of UAA³⁶).

The Lunigiana land structure is marked by small farms. 83,8% of them has a TAA smaller than 5 hectares, almost 10% has an area between 5 and 10 and only 5,7% has an area between 10 and 30 hectares. Less than 1% of farms has a surface greater than 30 hectares. These percentages, similar to the provincial ones, are slightly different from the regional data (approximately 67% the farms with less than 5 hectares, about 13% between 5 and 10 hectares, about 7% over 30 hectares).

Land fragmentation, beside having been produced by morphologic reasons, has also historical origins linked to the Longobard law in force during the Middle Ages, which established to share the estate among all children.

If we analyze the UAA exploitation, we see that 56,8% is destined to permanent meadowland and pastures, 34,7% to agrarian wood crops, 7,3% to arable land and 1,1 to kitchen gardens. Arable lands are mainly employed for fodder crops in rotation (35,1%), fallow land (17,1%), grain cereals (17,9%), potatoes (13,6%), vegetable-garden products (11,4%). Among wood crops we find grapevine which represents 18,1%, olive tree with 33,3%, fruit trees with 48,2%. Fruit trees are constituted by 43,4% of chestnut trees³⁷.

With regard to agriculture-related activities, there are 75 agritourism farms, 45 activities for animal product processing and 28 activities for vegetable product processing, 21 processing activities for third parties and 20 linked to silviculture³⁸. On the whole, these activities are realized by farms that represent 6,25%³⁹ of all Lunigiana farms.

Concerning the zootechnical heritage, Livestock Units (LU) is constituted by 32,7% of cattle, 31% of poultry, 16,6% of equine animals, 10,5% of sheep and 6,7% of pigs⁴⁰.

The remaining part is composed of goats, rabbits and buffaloes. If we consider the number of units, in Lunigiana there are about 2.400 cattle, 5.300 sheep, 1.200 pigs, 55.800 poultries and 3.700 rabbits⁴¹. According to the sectorial analysis made in the Local RDP 2007-2013 of the Province of Massa Carrara, agriculture represents an added value of

³⁶ Tuscany region, *La Toscana al 6° Censimento Generale dell'Agricoltura – Risultati definitivi, 2012*, p. 10.

³⁷ Author's review on data <http://dati-censimentoagricoltura.istat.it/#> consulted on 29/12/2013.

³⁸ <http://dati-censimentoagricoltura.istat.it/#> consulted on 29/12/2013.

³⁹ Author's review on data <http://dati-censimentoagricoltura.istat.it/#> consulted on 29/12/2013.

⁴⁰ *Ibidem*.

⁴¹ <http://dati-censimentoagricoltura.istat.it/#> consulted on 29/12/2013.

4,44% of the total (more than twice the amount of regional average, 1,89%) and employees are 4,36% of the total (also higher than the regional average, which is 4,09%).

Considering the above mentioned data, which show the current situation of agriculture in Lunigiana, we can make the first remarks. First of all the great decrease in agricultural surface, however already existing in 1985, and the reduction of the number of farms show a never-ending decline of agriculture on high hills and on mountain areas. This causes negative consequences on economic and social fabric of the area and increases problems connected to territory management, hydrogeologic system, production facilities maintenance and landscape safeguard.

Although in this area the economic impact of agriculture is low, the role of the primary sector is anyway important because it determines Lunigiana as a rural territory and also because it characterizes landscape, social dynamics and cultural heritage.

Moreover, Lunigiana is rich in agrifood productions, some of them acknowledged by the European Community. In the vine sector we find two Protected Designations of Origin (Colli di Luni and the neighbouring Candia dei Colli Apuani) as well as one Protected Geographical Indication (Val di Magra). Beside wine, oil production is considerable, only a little part of which reaches the conventional trading channels. Most of it is absorbed by auto-consumption and direct sales. Lunigiana is one of the eight areas which produce the PGI Tuscany Extra Virgin Olive Oil. Other typical certified products of this territory are the PDO Honey of Lunigiana, the PGI Mushroom of Borgotaro and the PDO chestnut Flour of Lunigiana.

We can also mention some Slow Food products such as the Lamb of Zeri, the Marocca of Casola (chestnut flour bread) and the home-made Testarolo of Pontremoli (unleavened bread).

Apart from enogastronomical productions, there is another strategic sector for rural economy: tourism. This sector is characterized by a diversified offer (hotels, camps, room rentals, agritourism, holiday houses, Bed and Breakfast, seasonal rentals) and it owes its strength to its distinctive enogastronomic, environmental and naturalistic peculiarities.

In a survey on rural tourism carried out by IRPET in 2005, Lunigiana is considered a rural-touristic system, that is a system in which tourism “plays a role as an income supplement, optimizing the economic value of landscape and environmental resources, bringing profits to situations that would otherwise be separate from regional development”, nevertheless

this system “is still marked by high instability and by the risk of falling again into economic marginality”⁴².

With regard to agritourism, a distinctive characteristic of Tuscan rural model, Lunigiana is rather late in comparison with the rest of Tuscany. As Balestrieri (2005) points out, Lunigiana is not specialized in agritourism.

In the context described above, although we notice a decline of the local agri-ecosystem, agriculture still has a decisive weight in characterizing and protecting the landscape. The above-mentioned factors as a whole (mountain territory, small farm dimensions, the prevailing role of family-run businesses and a widespread auto-consumption of crop’s products) explain the marginality of Lunigiana, especially if we compare it to the model of agriculture modernization.

Nevertheless, what was seen as a weakness in the past, which made Lunigiana a marginalized area, may nowadays become a positive aspect. The environment of Lunigiana is intact, its traditions and typical products have been preserved as well as its important artistic and cultural heritage. If these characteristics are appropriately optimized, they will be able to start new development methods within the new model of European rural development.

As Berti (2009) assumed, this model will have to be endogenous, that is mainly based on local resources, integrated, therefore including all local economic and social activities, and sustainable, in order to protect all the resources employed in the production process.

2.2 Description of the case study

The subject of our study is an estate located in the east of Pontremoli and near the border with the municipality of Filattiera. This undivided holding is about 18 hectares wide and its operational centre, composed of two rural buildings, is situated at an altitude between 320 and 325 meters.

On the Regional Technical Map the area in which the buildings are located is called Guello.

⁴²IRPET and Tuscany Region-Department of Economic Development, 2001, in Balestrieri G., 2005, *Il turismo rurale nello sviluppo territoriale integrato della Toscana*, IRPET and Tuscany Region, p.18 .

The estate is currently abandoned. Agricultural activity, as well as the use of the buildings, has probably been given up twenty years ago. Since it is not possible to trace the previous owners, we can however assume that their agricultural activity was based on livestock farming and olive and chestnut production. This hypothesis comes both from the analysis of land registers, indicating the quality of land, and from the remarks made during our inspection. See in table 5 and in annexe 1 the classification of the estate land.

Table 5 Land quality and surface of the estate.

| Land quality | Surface (ha) |
|----------------------|---------------------|
| Copse | 0,4252 |
| Chestnut plantation | 3,6032 |
| Woody pasture | 9,5448 |
| Bushy pasture | 0,0906 |
| Meadows | 0,848 |
| Arable land | 3,3786 |
| Olive grove | 0,5215 |
| Total surface | 18,4119 |

What arises from the land characteristics is that half of the estate was destined to pasture and about four hectares to arable crops (probably cereals) and to grassland. The chestnut plantations also cover a large area, while forests and olive trees are marginal. Due to the abandonment of the agricultural activity, bushes and shrubs have proliferated and colonised some areas, that were once cultivated or used as pastures.

In order to reach the estate there is a local road, starting from *Via dei Cappuccini*; then, after crossing the *Canale dell'Angelo*, there is a private road. Nowadays only agricultural means of transport or cross-country vehicles can go through this local road, which goes into the wood. The private road is on the contrary a path you can only walk or follow by a dirt bike and it stops in a flat area. In order to arrive at the farm buildings, you have to walk through an area almost completely covered with bushes and shrubs. The overall distance is about 770 m.

The heart of the estate is made of a pair of two-storey buildings. Now only the main building is partially visible, because a thick vegetation has colonised the two structures.

The characteristics of the two structures represent the typical model of rural building of Lunigiana. The masonry elements (stone and mortar) are attributable to the building

tradition of the centuries XIV-XV to XX⁴³. The state of abandon and the lack of maintenance affected negatively on the current state of structural insecurity.

The buildings still have some of the typical architectural features of rural houses in Lunigiana, such as: the roof wooden framework, the external stairs made of stone that join the ground floor to the first, the terrace which was once used as a farmyard, the ground floor used for animal housing and barn⁴⁴.

Beside the main building there is a small ruin that, according to the owners, was used to collect and store rainwater, therefore performing the task of supplying water.

Environment, territorial and urban framework

In order to lay down a project to restore the estate, first of all we have to consider it within the framework of the available territorial instruments. The most significant tables of the area are quoted in this paragraph.

The estate within the Municipal Structural Planning Framework

In the map of geomorphological dangerousness (Annexe 2) the centre of the holding is described as an area with stabilised inactive landslides (G2) and as a flat and sub-flat area in which geomorphological processes and lithological and/or disposition features are not factors that could provoke land movements (G1). In the southern part of the estate, where a canal flows into the *Canale dell'Angelo*, there is an area with active phenomena (G4).

The remaining area of our estate is classified under the category of quiescent phenomena areas (G3).

In the map of aquifers vulnerability (Annexe 3), the estate is classified under a medium vulnerability. However there are two areas, in the south and in the north of the operational centre, that are classified under high-medium vulnerability.

⁴³Ferrando Cabona I., 1990, Archeologia dell'edilizia povera in Lunigiana: metodi e primi risultati, in *La casa rurale in Lunigiana* a cura di Maffei G.L., Marsilio Editori, p. 164.

⁴⁴Maffei G.L., 1990, Insempiamenti e case rurali, in *La casa rurale in Lunigiana* a cura di Maffei G.L., Marsilio Editori, p. 127-129.

The estate within the Provincial Structural Planning Framework

The estate is subject to hydrogeological constraints (Annexe 4); there are not archaeological constraints (Annexe 5) and the area doesn't fall within protected areas, parks and Sites with Regional Interest (*Siti di interesse regionale - SIR*) (Annexe 6).

The map of land exploitation of 1985 (Annexe 7), determines four typologies in our estate: sparse coppice forest, arboreal pasture, abandoned arboreal olive and vine arable crops, chestnut trees.

Examining aerial photographs⁴⁵ (Annexe 8) it can be seen that on the pastures, over the years, bushes and shrubs have grown up. Woods are sparse and little thick.

The estate within the General Structure Plan Framework

In the table of the General Structure Plan (Annexe 9), the buildings of our case study are classified as E2 zone – scattered building units and their direct relevance (art. 19). The remaining area is mostly divided into two zones: E4 territorial agricultural zone (art. 21) and E26 woodland zone (art. 23). A little part is classified as E5 agricultural areas characterized by grassland-pasture (art. 22).

Examining the urban, environmental and territorial framework is necessary in order to evaluate possible interventions required to restore the estate and to start a new agricultural activity, referred to in chapter 2.3.

2.3 Hypothesis to restore the case study

Land exploitation – pastures, meadows and arable land

As described in chapter 2.2 the land, once cultivated or utilized for the pasture, has partly been colonised by bushes and shrubs, due to the abandonment of the agricultural activity (Annexe 11).

In order to choose the appropriate interventions we considered first of all the land characteristics, with reference to land registers (see Table 5 and Annexe 1). During the inspection carried out in the estate, in 2012, it was only possible to look at the area surrounding the path leading to the buildings, therefore, in order to obtain a general framework of the holding, we had to consult aerial photographs from the Environment

⁴⁵ http://mapserver.provincia.ms.it/SIT_Vincolo_Idrogeologico/ consulted on 01/12/2013.

Regional Information System of Tuscany and from the SIT & Mapping service of the Province of Massa Carrara.

After consulting the aerial photos⁴⁶ (Annexe 8), it was possible to draw an outline of the overall situation of the holding: arable land and meadows are still visible and there are some solitary bushes and shrubs; in the woody/bushy pasture, on the contrary, shrubs are abundant and there you may see two land typologies: one area with sparse shrubs, the other more densely covered.

The first typology, according to the regional regulations, falls within the definition of “area comparable to woodland”; article 3, sub 4 of Regional Law No. 39 of 2000 (Forest Law) establishes that “forest bushy vegetation covering the ground by at least 40% may be treated as woodland”.

The second typology falls within the definition of woodland, as established by sub 1 of the above article: woodland is “any area having an extent of not less than 2.000 square meters and being at least 20 meters wide, measured at the base of boundary trees, covered with spontaneous or artificial forest arboreal vegetation, at any development stage, having a density not lower than five hundred trees per hectare or being able to cover, by the projection of foliage on the horizontal plane, at least 20 per cent of the ground. Chestnut and cork trees may also be considered as woodland”.

Both arboreal arable land and meadows of our estate correspond to the definition of “steady land” (*terreni saldi*) referred to in sub 1, article 82 of R.L. 39/2000: “pasture and land that have not been subject to agricultural activity or land exploitation or any other kind of agricultural intervention for at least eight years”.

In the light of such a framework, our estate is composed of woodland for 6,32ha, area comparable to woodland for 3,32ha and “steady land” for 4,23ha (See Table 6).

Any intervention involving the elimination of woodland vegetation in order to use its land for purposes other than forest intentions, may be considered forest transformation⁴⁷.

Woodland is subject to hydrogeological and landscape constraints, therefore, in order to transform the woodland, it is necessary to ask for an authorization to the competent authorities, in this case to the *Comunità montana* (Mountain District).

⁴⁶ http://sira.arpat.toscana.it/sira/inspire/map/mappa_rt.html?dataset=fanghi# and http://mapserver.provincia.ms.it/SIT_Carta_Uso_del_Suolo_25K/ consulted in 01/12/2013.

⁴⁷ Sub 1, article 79, Forest Regulation of Tuscany No. 48/2003 and subsequent amendments and additions.

Table 6 Definition of the current state of the estate's land as provided by the Forest Law.

| Land quality | Description | Surface (ha) |
|----------------------|--|---------------------|
| Woody pasture | Woodland (article 3, sub 1) | 6,32 |
| Woody pasture | Area comparable to woodland (article 3, sub 4) | 3,23 |
| Bushy pasture | Area comparable to woodland (article 3, sub 4) | 0,09 |
| Grassland | Steady land (article 82, sub 1) | 0,85 |
| Arable land | Steady land (article 82, sub 1) | 3,38 |

The transformation of woodland and of bushy vegetation comparable to woodland is only possible for environmental reasons or exceptional circumstances⁴⁸ or to bring back the agricultural activity to those areas already destined to this purpose.

When the forest transformation concerns areas with a width of more than 2.000 square meters, it is necessary to reforest an equivalent portion of land (compensative afforestation⁴⁹). Clearly it is not possible to implement the compensative afforestation in our estate, then, in order to transform the woodland, according to sub 6, art. 81 of Forest Regulation, it is necessary to pay EUR 150 every 100 square meters (or fraction) to be transformed, to the competent office. In our case study, the amount to be paid to the authority for the restoration of the areas become wood would be EUR 86.250. Obviously, this huge amount makes the intervention unfeasible.

According to the law, compensative afforestation is not possible in areas comparable to woodland⁵⁰, therefore, with the authorization of the *Comunità Montana*, these areas could be subject to transformations. In these areas shrubs, bushes and most of the trees

⁴⁸ Sub 2, article 80, Forest Regulation of Tuscany No. 48/2003 and subsequent amendment and additions.

⁴⁹ Article 81, Woodland Regulation of Tuscany No. 48/2003 and subsequent amendments and additions.

⁵⁰ Sub 1, Article 81, Woodland Regulation of Tuscany No. 48/2003 and subsequent amendments and additions.

will be cut, in order to restore the previous arboreal pastures. After taking trees and/or stumps out of the ground, holes will be covered and the soil planted with grass.

In the “steady land”, bushes and shrubs will be cut, being careful not to damage any trees. Referring to the regional rules, eradicating shrubs is only allowed in case of cultural transformation or interventions. According to the article 42 of the Forest Law, also for the transformation of the steady land into arable land a specific authorization is needed.

After being cut, shrubs will be removed or crushed. Drainage of surface water will be ensured, soil erosion and water stagnation avoided through the creation of permanent (or temporary) ditches. Draining waters will be then transported to natural watershed, thus avoiding downstream soil erosion and helping to improve the efficiency of the agricultural hydraulic system.

Chestnut plantations and olive grove

With the end of agricultural activity, chestnut and olive trees too have been completely abandoned (Annexe 11). Although some dried branches are visible on chestnuts, resulting from bark cancer, we must consider the importance of some monumental chestnuts as well as the significance of chestnut as a peculiarity of Lunigiana landscape. Moreover rural buildings and local gastronomy demonstrate that chestnut has had a great impact on rural economy. This remarks apply also to olive trees, which contribute in differentiating and characterizing the landscape.

In the light of these observations, in order to restore our estate, we have to consider to remove bushes and dead trees and to prune the trees in worst conditions. Later on it could be advisable to replace and/or afforest the chestnut groves. With such interventions we can expect a short-term medium-low production, however we may plan to carry out more interventions on these trees in the future, in order to increase their productivity.

Interventions to restore the road conditions

Road conditions must be improved and reinforced not only to allow people entering the estate but also to guarantee the reconstruction of the buildings and the restoring of agricultural activity.

Some roads inside the estate are small and need to be widened, because the forest regional law establishes that they should be at least two meters wide (Annexe 11). Since

the area is subject to landscape and hydrogeological constraints, authorizations must be asked in order to comply with the laws.

Interventions to restore buildings

As previously described, the operational centre is classified as zone E2 with regard to the General Structure Plan of the municipality of Pontremoli: scattered buildings and their direct relevance. For this zone typology the municipality allows to restore and to extend the existing buildings but also to build new structures. The intended purposes of interventions are strictly linked to agricultural activity, including housing. Subsidiary activities may take place inside the rural buildings, such as tourism facilities, shops for local agricultural or craft products, agri-forest and agricultural products processing, agritourism activities. The General Structure Plan establishes that the elements indicating the intended purposes as well as the different functional parts (farmyard, orchards, resting areas, etc.) must be preserved. The steps to bring the estate back to its agricultural activity must be made, therefore, in conformity with Pontremoli urban regulations.

The restoring will have to face buildings deterioration: the existing masonry is unsafe and sometimes collapsed or cracked. It will be necessary to provide for a preliminary study on the static situation of the buildings, in order to identify the interventions required for foundations, floors and walls.

It is not possible to repair the wooden roofing, therefore it will be rebuilt with new wooden material.

Concerning masonry, it is required to make the restoring coherent with the original buildings. Masonry technique and stone laying and size must be similar to the existing ones.

The elevated parts will be made of stone and, if necessary, small portions of plaster will be afterwards painted with colours reminding of the surrounding environment.

Water supply

The remote village of Guello is located near *Costa Chiavichetta*, dividing the *Canale d'Angelo* valley from the *Canale Gorgoglione* Valley. Guello has an altitude between 320 and 325 meters above sea level, while the summit of *Costa Chiavichetta* is 328 meters high.

In the south of the village there's a watershed area where draining waters form a little stream. The high position of the village and the presence of calcareous marls all around do not suggest the possibility to find great water supplies, except for an hypothetical rainwater basin located at the bottom of the hill.

No natural spring is present in the above area, according to the map of water system network (Annexe 10), except the springs near Scarponara, feeding the north-eastern water system. Cà di Bano, on the other side of the valley, is the nearest village fed by Pontremoli water system. This network belongs to the branch No. 17 "Arzengio", fed by the tanks of *Monte Galletto*, *C. Cervetti* and *La Botte di Arzengio*, presumably fed by the water spring located in Scarponara.

The same map (see Annexe 10) indicates three active wells, two of which have domestic purposes, while the other has an "unknown" purpose, in the west and south-west of Guello and at Cà di Bano. Nevertheless no other data concerning their depth, flow and drinkableness are available. The map clearly shows that our estate can't rely on any spring or well, thus suggesting the hypothesis to restore a water supply coming from Cà di Bano through line No. 17 "Arzengio", going down to the bottom of the valley and then up again towards Guello.

2.4 Hypothetical development of agricultural activity

In order to develop an agricultural activity we need to take into account the peculiarities of the holding: a large undivided estate, the presence of woodland, chestnut trees and pasture; but it is of utmost importance the evaluation of negative aspects, such as the lack of springs, the impossibility to dig pits with agricultural purposes, the steep slopes.

A possible scenario is an agricultural activity that could be aware and take advantage from the negative conditions of the holding.

For our case study we may suggest to start with pig farming in order to enhance pasture and underwood, consequently developing other activities. Pig farming will be supplemented with a laboratory for meat dissection, preparation and packaging. The farm, in fact, could be characterized by the sale of pig meat. The Tuscany tradition for meat dressing could suggest to prepare special barbecue packages, that would become a distinctive element of the farm.

Secondary activities could be developed starting from pig farming, trying to exploit other aspects such as the extent of the holding or the environment and landscape resources.

Arranging the woodland with barbecue focus areas could appeal customers and have a positive impact on meat sales. Recreational and educational initiatives would foster the exploitation of the estate, like organizing tourist routes inside chestnut and olive plantations at harvest time or showing open air pig farming and meat processing.

Beekeeping and honey production could be a subsidiary activity, that could also develop tourist and educational initiatives.

Setting up catering and tasting areas might help in enhancing the holding development, for this purpose it would be advisable to build a laboratory-kitchen to be used also to process other products (honey, liquors, etc.).

The exploitation of chestnut plantations, olive trees and other crops will of course be considered in the restoration project. Concerning chestnut plantations, the production at the beginning would be rather limited, due to their bad conditions. Chestnuts will be dried and milled outside the estate, then the flour will be primarily used for catering and tasting meeting, but also to be sold to people attending the tourist events.

Olive trees will also have a limited production and the oil obtained from external mills will be employed for meals and tasting events.

Arable land will be cropped with cereals that will then be used to feed pigs, while the straw will serve for animal bedding. The forage obtained from grassland will also be used for animal breeding.

It would be desirable to adopt conservation agriculture techniques, such as strip-till, in order to reduce erosion and avoid landslides.

Pig meat will mainly be used for meals and tastings, but will also be sold to guests and to people coming for a picnic in the farm. Sales promotion of meat packages will be made on a website and also directly to visitors and tourists participating in the farm events.

The beekeeping activity will initially concern about ten hives. Honey will be employed in tasting and catering events or sold directly to visitors.

The above mentioned activities are better described in the following paragraphs.

Organizing and planning outdoor pig rearing

Animal husbandry involves different aspects, such as health regulations, animal welfare and appropriate livestock density per surface unit. Our study takes into account the guidelines for outdoor pigs management and health control set by the Emilia Romagna region⁵¹.

Due to the lack of management and professional experience, rearing pigs will be at first the only occupation and weaners will be bought from other farms.

With regard to the breed, considering both livestock typology and farm characteristics, it will be advisable to choose among aboriginal breeds, such as the “cinta senese”. We estimate to reach an average number of approximately twenty pigs.

Just to be more precise about outdoor pig rearing, it is a kind of rearing where pigs are not housed inside permanent masonry structures, but they are reared on open-air agrarian and/or forest areas that are limited by suitable fences. The animals defecate directly on the breeding area, therefore land rotation must be planned.

Pig rearing could be organized by dividing it into two sectors: tending and pasture. The tending area includes houses, feeding and watering points. Close to this area there will be three different zones: a capture zone, where pigs undergo ordinary health controls, vaccinations and pharmacological treatments and where animals are selected and loaded to be carried away; an infirmary zone for injured and sick pigs, physically separated from all the others; a quarantine zone, to isolate and control new pigs before admitting them into the rearing areas.

The tending area will be limited by a fence made of welded or knotted steel mesh that will be at least 120 cm high, embedded in the ground and bent outwards by at least 20 cm to prevent wild animals from entering. A further electrified net will be added to the previous one. Animal houses will be placed inside the tending area and must have a minimum surface of 0,6 sq.m./pig with live weight between 110 and 160 Kg⁵².

Therefore if we want to rear 20 pigs, keeping an extra space for other ten fat pigs, the house must be at least 18 sq.m. wide.

⁵¹ Emilia Romagna region, *Linee guida per la gestione e il controllo sanitario dell'allevamento di suini all'aperto. Criteri di biosicurezza*, D.G.R. No. 1248/2008, Bollettino Ufficiale della Regione Emilia Romagna n. 150 del 27/08/2008.

⁵² Cf. paragraph 5.2 of guidelines for outdoor pigs management (see previous annotation).

The pasture area will only be limited by an electrified fence, made of three series of electrified wire; day time pasture will take place in this area, while pigs will go inside at night time. Pasturing in wooded land is possible and, with regard to pigs, it is subject to the obligation of a declaration to the *Comunità Montana* and to the provisions established by article 86 of the forest regional regulation.

The size of the pasture area must be referred to nitrogen limits (resulting from zootechnical effluents) per surface unit established by Ministerial Decree Mi.P.A.A.F. of 7th April 2006⁵³.

If we consider that a pig (live weight between 86 and 160 Kg and average live weight of 120 Kg) produces 13,2 Kg. of nitrogen⁵⁴, to comply with a maximum 170 kg. nitrogen load in nitrogen-vulnerable areas, we can only have 13 heads per hectare. As a consequence, if we estimate to rear twenty pigs on the average, we must fence an area of 1,6 hectares.

The husbandry will involve a one or two-year rotation of the day-time pasture, in order to safeguard the soil structure.

Inside the pasture area it is however required to install at least one feed hopper and one drinking trough. Houses are not necessary because pigs may find a suitable shelter inside the wooded areas of the pasture.

Houses in the tending area are constituted by two prefabricated huts of 10sq.m. with insulated panels and covers.

Planning activities to foster pig meat

The first requirement to deal with when realizing a meat dissection and packaging laboratory is to observe the sanitation conditions. In accordance with Common law, in case of direct supply of small quantities of primary products from the producer to the final consumer, the Regulation (EC) No. 852/2004 is enforced, and it establishes that the operators of the food sector must be registered.

⁵³ Ministry for Agricultural and Forestry policies, *Criteri e norme tecniche generali per la disciplina regionale dell'utilizzazione agronomica degli effluenti di allevamento, di cui all'articolo 38 del decreto legislativo 11 maggio 1999, n. 152*, Decreto 7 aprile 2006, Gazzetta Ufficiale della Repubblica Italiana n. 109 del 12/05/2006, Suppl. Ordinario n. 120.

⁵⁴ Table 1, *Regolamento ai sensi dell'articolo 8 della L.R. 6 marzo 2007 n. 4 disposizioni in materia di utilizzazione agronomica degli effluenti di allevamento e delle acque reflue derivanti da aziende agricole e piccole aziende agro alimentari*, D.G.R. No. 1494/2011, Bollettino Ufficiale della Regione Emilia Romagna n. 161 del 28/10/2011,.

According to this law the laboratory will have to comply with the Regulation general directives and with any further municipal provisions. Presumably the laboratory will be realized on the ground floor of the principal building and its project will have to be agreed in advance with the competent authorities. The laboratory must be provided with all the required equipment to dissect carcass halves coming from the slaughterhouse and to process pig meat (e.g. to produce sausages, kebab, hamburger, crushed lard, etc.).

The laboratory must be divided into two areas: an area where carcass halves are received and meat processed and another one with a cold room and a packaging line where meat is sold. The latter area must be equipped with all packaging devices and materials (e.g. trays, vacuum machine, etc.) and also a fridge-counter for direct sales.

Farm hospitality and estate enjoyment

Some initiatives could help the development of pig farming. We may suggest two typologies of activities. The first typology is linked to farm hospitality: it includes the realization of educational tours related to the farm activities and the exploitation of farm products through catering and tasting events. For these activities the secondary building could be employed, where the ground floor would be fitted out with a multifunctional laboratory-kitchen and a room for tasting and catering. The room would be strictly connected to recreational and educational events, in fact, on the upper floor, a room could be equipped for recreational activities. These activities fall within the application framework of the regional law No. 30 of 2003, regulating agritourism activities.

The second typology of activities concerns the estate enjoyment and aims at fostering the landscape distinctive peculiarities: the chestnut plantations, the small olive grove and the forest. The target is to realize two pic-nic areas equipped with barbecue points and to create or restore paths for walks through the estate. Recreational events linked to chestnut and olive harvest time could be organized. The pic-nic areas will be equipped with barbecue focus areas and people will have free access to them. These areas are subject to authorization in accordance with the forest regional law.

Other farm structures and general remarks

For the realization of the above-mentioned activities a building is needed for the storage of cereals, pig feed and forage and also to store the equipment for agricultural activities as

well as agricultural vehicles that will necessarily be bought, although the main processes will be carried out by contractors

Urban regulations allow the construction of such a building, which is essential for agricultural activity, but it is subject to the approval of a specific plan of agricultural and environmental improvement and to a specific agreement or to an unilateral obligation with the municipality⁵⁵.

2.5 Cost assessment

The cost estimation will be synthetic, just giving a summary indication of the expenses for the main works to be carried out, in order to help making the best choices and decisions for the restoration.

With this purpose we will take into account the costs beard for similar interventions, provincial and/or regional price lists, quotations found in the specialised press and among professionals of the sector and, in some case, author's estimated cost, based on direct knowledge of similar projects.

All quoted costs do not include the VAT, charge for occupational safety and costs connected to the obtainment of authorizations, declarations or permits established by sectoral specific rules. Regarding forestry interventions, costs for brushwood and trunk chipping and for their transport have not been counted as it is assumed to be completely covered by the sale of wood chips.

⁵⁵ In accordance with article 17 of implementing technical regulations of the municipal Structure Plan.

Estimated costs to restore grassland and arable land (steady land) and pasture (areas comparable to woodland)⁵⁶

| Intervention area | Description | Unit price | M.U. | ha/n. tree | Amount |
|---|---|-------------------|-------------|-------------------|---------------|
| Areas comparable to woodland | Mechanical brushcutting on slightly cover land (bushy area greater than 60%), removal of waste material | 1.210 | €/hectare | 3,32 | 4.016 |
| Areas comparable to woodland | Cutting dead or suffering arboreal trees, removal of waste material | 197 | €/tree | 6,64 | 1.308 |
| Areas comparable to woodland | Pruning arboreal vegetation by cutting branches, in order to heal, rejuvenate and re-balance the tree foliage. Removal and elimination of waste material. | 57 | €/tree | 9,96 | 568 |
| Steady land | Mechanical brushcutting on slightly cover land (bushy area between 30% and 60%). Removal of waste material. | 664 | €/hectare | 4,23 | 2.807 |
| Total amount for the restore of areas comparable to woodland and steady land | | | | | 8.698 |

Estimated costs for interventions on chestnut and olive trees

The estimated costs are referred to a density of 80 trees/hectare for the chestnuts and 270 trees/hectare for the olive grove. For both typologies we estimated 10% of dead trees and 30% of trees to be pruned.

⁵⁶ The informations about the costs is taken from the "Prezziario regionale per interventi e opere forestali" of the Tuscany region (*Modifiche ed integrazioni al prezzo regionale per interventi ed opere forestali di cui alla DGR n. 158/2007, Delibera di giunta regionale n. 1091 del 22/12/2008, Bollettino Ufficiale della Regione Toscana n. 55 del 31/12/2008*). Costs were then reassessed to year 2013 through the consumer price general index (<http://rivaluta.istat.it/Rivaluta/> consulted on 22/02/2013)

Table 7 Costs to restore chestnut plantation and olive grove⁵⁷.

| Area description | Intervention description | Unit Price | M.U. | ha/No. trees | Amount |
|--|--|-------------------|-------------|---------------------|---------------|
| Chestnut plantation | Cutting shrubs and arboreal vegetation. Removal of waste material | 2.564,37 | €/hectare | 3,60 | 9.240 |
| Chestnut plantation | Cutting dead or suffering chestnut trees. Removal of waste material | 196,91 | €/tree | 28,83 | 5.676 |
| Chestnut plantation | Pruning chestnut trees by cutting branches, in order to heal, rejuvenate and re-balance the tree foliage. Removal and elimination of waste material | 57,03 | €/tree | 691,81 | 39.453 |
| Olive grove | Cutting shrubs and arboreal vegetation. Removal of waste material | 2.564,37 | €/hectare | 0,52 | 1.337 |
| Olive grove | Cutting dead or suffering olive trees. Removal of waste material | 98,54 | €/tree | 14,49 | 1.428 |
| Olive grove | Extraordinary restoration pruning of olive trees over 50 years. The interventions include pruning cuts (on main and secondary branches and, in severe cases, at the base of the trunk), disposal of pruning residues, and subsequent pruning interventions | 27,12 | €/tree | 43,46 | 1.179 |
| Total amount to restore chestnut plantation and olive grove | | | | | 58.312 |

Estimated costs to restore the access road and for connection to water supply network

The intervention costs were estimated adjusting the parametric cost to realize a public road (*Collegio deli ingegneri e architetti di Milano, 2012*). Therefore costs concerning lighting, pavements, drainage system, road signs, kerbs and ramps were taken away. Laying the telephone line was on the contrary included in the final cost. The laying of water pipes will be carried out before the road is finished.

⁵⁷ The cost of cutting dead or ailing olive plants is considered half of that provided for the chestnut. The information about the cost for extra pruning is taken from the “*Prezziario per opere ed interventi in agricoltura*” of the Emilia-Romagna region (*Prezziario per opere ed interventi in agricoltura, Delibera di giunta regionale n. 1834/2007, Bollettino Ufficiale della Regione Emilia Romagna n. 183 del 18/12/2007*). For all the other item prices refer to annotation No. 56. All the indicated costs have been reassessed to 2013 (see annotation No. 56).

Table 8 Estimated costs to restore and widen the access road⁵⁸. Only the part of the road belonging to the estate will be widened.

| Description | Road length m | Width m | Road area sq.m. | Farmyard construction sq.m. | Total area for the intervention sq.m. | Intervention costs €/sq.m. | Total amount € |
|---|---------------|---------|-----------------|-----------------------------|---------------------------------------|----------------------------|----------------|
| Restoring and widening of the access road to the holding. The amount includes excavations and embankments, settling slopes, edges and road plane plane, asphalt, the laying of lines for services supply (telephone line) and anything else to carry out works in accordance with good practice. The roadbed is made of compressed quarry stones and of foundation quarry or river tuot-venant (total height cm 25), of compressed steady granular mixture (5 cm in height) and of un upper lay of bituminous binder (8 cm in height). The final work is the realization of a road 2.5 meters on the average. | 772 | 2,5 | 1.930 | 300 | 2.230 | 36 | 79.349 |

Table 9 Cost for connection to water supply network⁵⁹.

| Works on agricultural land or dirt road | Road length m | Intervention cost for the first 3 linear meter €/l.m. | Amount for the first 3 l.m. €/l.m. | Intervention cost for the next 3 l.m. €/l.m. | Amount for the next 3 l.m. € | Total amount € |
|---|---------------|---|------------------------------------|--|------------------------------|----------------|
| Water system connection including: excavation, buttress, pipes, manholes, administrative and technical expenses, building site settlement, plumbing equipment for houses/small production activity. | 772 | 595,31 | 1.786 | 30,10 | 23.237 | 25.023 |

⁵⁸ The informations about the costs is taken from Collegio degli ingegneri e architetti di Milano, 2012, *Prezzi tipologie edilizie*, DEI tipografia del genio civile, cost reassessed to 2013 (see annotation No. 56).

⁵⁹ Costs information taken from the *"Elenco prezzi degli allacciamenti idrici e fognari"* of ATO Toscana n. 4, 2007 (http://www.ato4.toscana.it/ing_famiglie.php?IDC1=2&ID=5 consulted on 17/01/2014), cost reassessed at year 2013 (see annotation No. 56).

Estimated costs for pig farming

Estimated costs for the creation of one pig place up to a live weight of 160 Kg in case of organic farming is 723 EUR/place⁶⁰ (CRPA, 2002). This cost does not consider all the expenses met for general works and common services in pig farming (health protection, lavatories, changing rooms, warehouse for materials and equipment, dead animals area, quarantine area, infirmary room, heating system). Therefore we can reasonably take this cost for outdoor farming. For the overall farming organization it is necessary to consider to rear a greater number of pigs than the required ones, in order to have a safety margin. Therefore if we suppose to rear 30 pigs, the estimated cost will be EUR 21.700.

Estimated costs to restore the buildings

The restoring of the buildings is carried out following the intended purposes related above the realization of a housing unit on the upper floor, a sectioning/packaging laboratory and a retail outlet on the ground floor.

The restoring costs were estimated adjusting the parametric cost to renovate a patrician house (Collegio degli ingegneri e architetti di Milano, 2012). The parametric intervention was referred to rebuilding/renovating/restoring a XVIII century crumbling house subject to the monumental constraint. The expenditure for items such as painting, decorations, blacksmith, marble-worker, external wall works, fixed furniture, stucco works and decorations have been removed; costs related with wooden window frames, masonries, plasters, floors and coverings has been cut by at least half their value. The intervention is comparable to ours: masonry bearing walls, brick/stone vaulted roof on the ground floor, wooden floor on upper floors, roofing wooden framework and stone roof.

The cost includes connections to telephone, electricity, gas and water and the discharge of both domestic sewage water and water comparable to domestic ones (sectioning laboratory).

The expenses to set up those rooms necessary to develop an agricultural activity must be added to the total amount.

⁶⁰ Cost reassessed at year 2013 (see annotation No. 56).

Table 10 Costs to restore the rural buildings of the holding⁶¹.

| Works description | Area sq.m. | Cost €/sq.m. | Amount € |
|---|-----------------------|-------------------------|---------------------|
| Building renovation for housing (first floor) and agricultural activity (ground floor: meat sectioning and packaging laboratory, retail outlet). Stone masonry, brick/wooden intermediate attics, wooden roofing attic. The intervention includes heating, electric, conditioning and domestic sewage systems. The building is composed of two floors (about 180 sq.m. the ground floor, about 140 sq.m. the first floor) | 320 | 815 | 260.802 |
| Building renovation for agricultural activity (multifunctional laboratory/kitchen and tasting/recreational rooms). Stone masonry, brick/wooden intermediate attics, wooden roofing attic. The intervention includes heating, electric, conditioning and domestic sewage systems. The building has a plan of about 130 sq.m. and is composed of two floors | 260 | 815 | 211.902 |
| Amount | | | 472.704 |
| Amount for connections and miscellaneous expenses (4% of amounts) | | | 18.908 |
| Planning and works supervision costs (7% of amounts) | | | 33.089 |
| Intervention total amount | | | 524.701 |

The laboratory for pig meat processing must be equipped with the following items: two cold rooms, one worktable and accessory tables, multipurpose trolley, two workers' washbasins, knife sterilizer, spices cabinet, conveyors, cold room shelves, bone saw, vacuum machine, fridge-counter, electronic scale and anything else that might be necessary to prepare, package and sell pig meat. The total amount is about EUR 30.500⁶². The estimated cost to furnish the multifunctional kitchen/laboratory (including kitchen, equipment, refrigerators, tables, chairs, tableware) is approximately EUR 35.000⁶³.

Estimated costs for the estate enjoyment

In order to enjoy the holding, beside restoring the areas as described in the previous chapters, it is necessary to clean woodland.

⁶¹ See annotation No. 58.

⁶² Author's estimated cost, based on direct knowledge of a similar project.

⁶³ *Ibidem*.

Table 11 Cost for wood cleaning⁶⁴

| Description of interventions for the woodland | Unit price | M.U. | No. trees | Amount |
|---|------------|--------|-----------|--------|
| Cutting dead or suffering trees; removal of waste material. | 196,91 | €/tree | 26,96 | 5.309 |

Table 12 Cost for the realization of footpaths and of two picnic areas provided with fire points⁶⁵.

| Intervention typology | Description | Unit price | M.U. | Area/No. Trees/No. Units | Amount |
|------------------------------------|--|------------|---------|--------------------------|---------------|
| Opening footpaths | Opening a footpath 0.8-1m wide; 10% maximum slope and upstream counterslope, including slope settlement also by means of small dry wall or naturalistic engineering works. | 3 | €/m | 600 | 1.882 |
| Realization of picnic areas | Realizing a site not smaller than 1 square meter, with upstream counterslope, worked manually at a depth of cm 40, in any kind of ground except rock, including upstream and downstream slope settlement; including any further expense. | 9 | €/sq.m. | 200 | 1.897 |
| | Realizing a cross fence made of peeled chestnut poles, formed by 10-12 cm stakes, 1 m in height, placed at regular intervals of 2 m (the underground points are treated with carbolineum or carbonized), by handrail and diagonals (8-10 cm. half-round section) fixed with galvanized iron screws and brackets; The work may include 30x30x30 cm. foundation plinths and little earthmoving and anything else to carry out works with good practice. | 45 | €/m | 140 | 6.331 |
| | Realization, supply and installation of wooden furniture (tables and benches) | 931 | €/unit | 2 | 1.862 |
| | Realization of open-air fire points, minimum dimensions: 210 cm in length, 90 cm in depth, 130 cm in height. The masonry wall has facing stones and a minimum thickness of 30 cm, finished with cement mortar, including foundation excavations, concrete foundation and installation of 15x15x0.8 cm welded mesh. The intervention includes the realization of the fire top, made of refractory flat tiles and bricks, the realization of at least 2 sq.m. of stone paving, the realization of suitable supports for grills, a supply of two 60x60 cm fixed iron grills and of two 60x60 cm mobile grills with handles. | 2.421 | €/unit | 2 | 4.843 |
| Total amount | | | | | 16.814 |

⁶⁴ See annotation No. 56.

⁶⁵ See annotation No. 56.

Other farm buildings and general remarks

The parametric cost of the construction of a warehouse is 358 EUR/sq.m.⁶⁶ (CRPA, 2008).

The cost includes all interventions and materials needed to complete the construction of a warehouse with steel structure, lateral walls, concrete floor, drain and electrical system.

Applying the parametric cost to our case study we can plan a warehouse with an internal working area of 270 sq.m., for a total cost of about EUR 97.000.

The equipment to realize and manage the apiary has an estimated cost of EUR 2.500⁶⁷. The cost of honey extraction has been considered within the cost of the multifunctional kitchen-laboratory.

2.6 Total expenditure for the restoring and development of agricultural activity

As it can be seen in Table 13, the greatest incidence on total expenditure is essentially given by the following items: building renovation, restoring of road conditions, services connections, warehouse realization.

Table 13 Summary of the total costs for restoring interventions and facilities construction.

| Cost description | Amount | Cost impact (%) |
|--|----------------|------------------------|
| Cost to restore pasture comparable to woodland and steady land | 8.698 | 1,0 |
| Cost to restore chestnut plantations and olive grove | 58.312 | 6,4 |
| Cost to restore road conditions and services connections | 104.372 | 11,5 |
| Cost to renovate buildings | 524.701 | 58,0 |
| Costs to restore the estate | 696.083 | 77,0 |
| Cost to realize structures for outdoor pig farming and apiary | 24.180 | 2,7 |
| Cost to supply laboratory equipment for sectioning, processing, | 30.472 | 3,4 |
| Cost to set up multifunctional kitchen-laboratory for catering and | 35.000 | 3,9 |
| Cost to restore woodland | 5.309 | 0,6 |
| Cost to realize footpaths and picnic areas | 16.814 | 1,9 |
| Cost to realize a warehouse | 96.660 | 10,7 |
| Costs for the farm's structures | 208.436 | 23,0 |
| Total amount | 904.519 | 100,0 |

⁶⁶ Cost reassessed to year 2013 (see annotation No. 56).

⁶⁷ Author's estimated cost, based on direct knowledge of a similar project.

The development lines for the agricultural activity in our case study are just starting points from which products and services will be gradually and continuously improved.

The success of production and processing activities will depend primarily upon the farmer's ability to approach consumers. For this purpose it will be fundamental to participate into the territory events, such as fairs and agricultural markets and to develop synergies with other touristic structures and cooperate with them in order to offer well organized and diversified recreational and touristic proposals.

2.7 Synthetic estimate of the value of the estate

In order to complete the financial analysis of the project, it is now important to assess briefly the value of the estate itself in 2013. For the estimation of the value of the land we took as reference the Average Agricultural values (VAM- *Valori Agricoli Medi*) of the provinces of Massa-Carrara, where the estate is located, and Parma, because the latter elaborated the values of quality of terrains very similar to our case study.

For the province of Parma, we considered the VAM of the agrarian region 1 and 2, that include the municipality of Borgo Val di Taro, Berceto and Corniglio, that border with the municipality of Pontremoli. After having compared, for each quality, the two VAM, we used an amount per hectare that could consider the current condition of the estate. For woodlands we considered the VAM of the province of Parma for coppice not served by roads. For areas comparable to woodland, grasslands and arable land we considered the VAM of the province of Parma for abandoned land. For chestnut and olive grove, given their state of degradation, we considered the average value between the values of the chestnut grove in the two provinces.

According to these criteria, the land value of the estate amounts to about EUR 86.000 (see Table 13).

For the estimation of rural buildings, we collected information on local real estate market and we found that the cost of buildings in good condition, but needing renovation stands at about EUR 500 sq.m. Given the state of degradation of the buildings in the estate, I considered a value of 400 EUR/sq.m. From this value the cost of restoration of road and water supply system is subtracted. According to these considerations, the value of farm buildings would amount to about EUR 128.000 (see Table 14).

The total value of the estate amount to about EUR 214.000.

Table 14 Synthetic estimate of the value of the estate using the Average Agricultural Values (VAM)

| Land quality | Surface (ha) | VAM province of Massa Carrara 2013 (€/ha) | VAM province of Parma 2013 (€/ha) | Estimated value considering the state of degradation of the area (€/ha) | Total value |
|---|----------------|---|-----------------------------------|---|---------------|
| Coppice | 0,4252 | 8.741 | 2.000 | 2.000 | 850 |
| Chestnut plantation | 3,6032 | 14.631 | 7.500 | 11.066 | 39.871 |
| Woody pasture (woodland) | 6,32 | 5.433 | 3.500 | 2.000 | 12.631 |
| Woody pasture (area comparable to woodland) | 3,23 | 5.433 | 3.500 | 3.500 | 11.302 |
| Bushy pasture (area comparable to woodland) | 0,0906 | 5.433 | 3.500 | 3.500 | 317 |
| Grassland | 0,848 | 5.433 | 3.500 | 3.500 | 2.968 |
| Arable land | 3,3786 | 35.901 | 3.500 | 3.500 | 11.825 |
| Olive grove | 0,5215 | 48.789 | / | 11.066 | 5.771 |
| Total surface | 18,4119 | Estate's value | | | 85.536 |

Table 15 Synthetic estimate of the value of the buildings according to the real estate market.

| Description | Surface (sq.m.) | Estimated value considering the state of degradation of the buildings (€/sq.m.) | Partial value | Costs for restoring roads and connection to water supply network | Total amount |
|-----------------|-----------------|---|---------------|--|--------------|
| Rural buildings | 580 | 400 | 232.000 | 104.372 | 127.628 |

3. CAP MEASURES SUPPORTING THE CASE STUDY

After having determined all the interventions required to restore an estate and to start an agricultural activity, we have now to verify if the first and the second pillar of the new CAP provide for economical instruments that could support planned interventions.

In order to make an exhaustive evaluation, we must first identify the person who will carry out the interventions: the farm that will settle in the holding and will be in charge of restoring the agricultural activity is constituted by a sole proprietorship company, whose owner is a young farmer (aged between 18 and 40). The farmer, that will have to buy the estate, hasn't any previous experience in agricultural activities or any degree or university qualifications on agrarian, veterinary or forest subject.

3.1 First pillar support

Since it is a new farm, that is going to be started in a holding where there hasn't been agricultural activity for the last 20 years, the main problem is that the cultivated land will not be eligible, that is, it won't be entitled to receive support. In order to be entitled to receive direct payments, it will be necessary to submit an application to be entitled to payments from the national reserve, as set out in the 2014-2020 planning.

Payment entitlements will only be allocated after checking the restoring interventions and the actual implementation of the agricultural activity.

As described in chapter 1.2, the new scheme of direct payments transfers to Member States many decisions concerning the method of payment distribution. Member States will have to take such decisions within end of July 2014. Now, as we do not know what strategies the Ministry of Agricultural and Forestry Policies will choose to determine the amount of entitlements, we suppose that the whole national territory will be considered as a region and that the national ceiling will be distributed with reference to the Utilised Agricultural Area (UAA). If we observe, then, that the new CAP sets up direct payments to some crops that previously were not entitled to, such as permanent crops (e.g. orchards and vineyards), the eligible area could approximately correspond to the UAA resulting from the last agricultural census. We suppose then that the national ceiling will be distributed among the compulsory components (basic payment, greening and young farmers payment) and that young farmers will be entitled to receive 2% of the national

ceiling. The national ceiling would then be composed of 30% greening, 2% young farmers and 68% basic payment.

Table 16 Calculation of the amount of basic payment and greening.

| National UAA* | Total amount** | basic payment (68% of national ceiling) | Greening (30% of national ceiling) | Total | Basic payment | Greening |
|---------------|----------------|---|------------------------------------|-----------|---------------|-----------|
| hectares | € | € | € | €/hectare | €/hectare | €/hectare |
| 12.856.047,82 | 3.704.337.000 | 2.518.949.160 | 1.111.301.100 | 288 | 196 | 86 |

The basic payment amount could be subject to a possible external convergence among member States that, for our case study, is not taken into consideration.

Table 17 Calculation of the amount of basic payment and greening for our case study.

| Crop | Eligible surface (ha) | Basic payment (€/ha) | Amount for basic payment (€) | Greening (€/ha) | Amount for greening (€) | Total direct payments (€/anno) |
|--------------|-----------------------|----------------------|------------------------------|-----------------|-------------------------|--------------------------------|
| Pasture | 3,32 | 196 | 650,50 | 86,44 | 286,99 | 937,49 |
| Grassland | 0,85 | 196 | 166,54 | 86,44 | 73,48 | 240,02 |
| Arable land | 3,38 | 196 | 662,26 | 86,44 | 292,17 | 954,43 |
| Total | | | | | | 2131,95 |

For the calculation of the payment to young farmers, Member States may choose among three methods. For our case study we suppose the method is the one increasing by 25% the average value of entitlements actually held by the farmer.

Table 18 Calculation of the payment for the young farmer in our case study.

| Total direct payments (€/year) | Eligible surface (ha) | Average direct payments (€/ha) | 25% of the average value (€) | Additional amount for young farmer (€/year) |
|--------------------------------|-----------------------|--------------------------------|------------------------------|---|
| 2131,95 | 7,55 | 282,38 | 70,59 | 532,99 |

To sum up, the amount of direct payments for the case study (basic payment and greening) will be about 2.100 EUR/year, plus an extra 500 EUR/year for the young farmer,

for five years. From the end of the restoring interventions and the beginning of the cultivation, to 2020, the farm will receive an annual payment of about EUR 2.600.

Table 19 Annual amount of direct payments.

| Payment typology | Annual payment amount € |
|------------------------------------|--------------------------------|
| Basic payment and greening | 2.132 |
| Additional amount for young farmer | 533 |
| Total direct payments | 2.665 |

3.2 Second pillar support

The new regulation on rural development sets up different measures in order to support some initiatives and investments that may concern our case study. The following paragraph explains such measures.

Investments in tangible assets⁶⁸

The new rural development will give support to tangible and/or intangible investments which:

- a) improve the overall performance and the sustainability of the agricultural holding;
- b) concern the processing, marketing and/or development of agricultural products;
- c) concern the infrastructures necessary to the development, modernization or adaptation of agriculture and forestry, including access to agricultural and forest land, land consolidation and improvement, the supply and saving of energy and water;
- d) are non-productive investments linked to the achievement of agri-environment-climate objectives, including biodiversity conservation status of species and habitat as well as enhancing the public interest of high nature value systems to be defined in the programme of the rural development.

The regulation establishes that the support to investments referred to letters a) and b) will not be higher than 40% of the expenditure, but will be 100% of the investment expenses

⁶⁸ Article 17, Reg. (EU) No. 1305/2013.

referred to letters c) and d). The support rate may be increased by 20% if the beneficiary is a young farmer or if the land concerned is under natural or other specific constraint.

*Farm and business development*⁶⁹

The regulation on rural development supports business start-up aid for young farmers, for non-agricultural activities in rural areas, for the development of small farms. The support is subject to the obligation of the submission of a business plan. The maximum support amount for a young farmer is EUR 70.000.

*Investments improving the resilience and environmental value of forest ecosystems*⁷⁰

A support is granted to natural persons, private and public forest-holders, private and public bodies and their associations. Investments aim at achieving environmental targets and/or at enhancing the public interest of forest land or at improving the climate change mitigation potential of ecosystems.

*Payments to areas facing natural or other specific constraints*⁷¹

Payments to farmers in mountain areas or other areas facing natural or other specific constraints are granted annually per hectare of land. This support compensates farmers for all or part of the additional costs and income foregone related to the constraints for agricultural production in the area concerned. Payments are fixed between a minimum of 25 EUR/year and a maximum of 450 EUR/year in mountain areas).

Correspondence between the measures 2014-2020 and the objectives of the measures 2007-2013

The above-mentioned measures and their objectives follow the intervention lines of the previous rural development. Each new measure correspond to one or more measures of the programming 2007-2013; this correspondence is exemplified in table 20.

In order to evaluate if the interventions of the case study can be economically supported by the new CAP, we will adopt the requirements and criteria for the access to support in the Rural Development Plan of Tuscany Region 2007-2013. From the table of the correspondence between old and new rural development (see Table 20) we will consider

⁶⁹ Article 19, Reg. (EU) No. 1305/2013.

⁷⁰ Article 25, Reg. (EU) No. 1305/2013.

⁷¹ Article 31, Reg. (EU) No. 1305/2013.

measure 112, which allows young farmers to take advantage of measures 121 and 311, and measures 122, 211, 214 and 227.

The next table describes the interventions eligible for support and the criteria and requirements to submit the aid applications.

Table 20 Correspondence of the new rural development measures with rural development measures 2007-2013.

| RURAL DEVELOPMENT MEASURES 2014-2020 (Reg. No. 1305/2013) | CORRESPONDENCE WITH RURAL DEVELOPMENT MEASURES 2007-2013 (Reg. No. 1698/2005) |
|---|---|
| Investments in tangible assets – art. 17 | Farm modernisation (measure 121), Improving the economic value of the forest (measure 122), Adding value to agricultural and forestry products (measure 123), Improving and developing infrastructure related to the development and adaptation of agriculture and forestry (measure 125), Agri-environmental payments (measure 214), Forest environment payments (measure 225), Support for non-productive investments (measures 216 e 227), Restoring forestry potential and introducing prevention actions (measure 226) |
| Farm and business development - art. 19 | Setting up of young farmers (measure 112), Farm modernisation (measure 121), Diversification into non-agricultural activities (measure 311), Support for the creation and development of micro-enterprises (measure 312), Encouragement of tourism activities (measure 313) |
| Investments improving the resilience and environmental value of forest ecosystems – art. 25 | Support for non-productive investments (measure 216 e measure 227) |
| Payments to areas facing natural or other specific constraints – art. 31 | Natural handicap payments to farmers in mountain areas (measure 211) and Payments to farmers in areas with handicaps, other than mountain areas (measure 212) |

Measure 112 – Young farmers settlements

Measure 112 establishes that young farmers (aged between 18 and 40), experiencing for the first time a farm business start-up, managing and being responsible for it, can be eligible for measure 121 (farm modernisation) and/or for measure 311 (non-agricultural diversification).

The farmer must have adequate skills and knowledge: a degree or university qualification in the agrarian, zootechnical or forestry sector or a work experience in a farm. The

professional requirement can also be obtained after submitting the aid application and demonstrated by taking an examination with the provincial council as established by R.L. 27th July 2007 No. 45⁷² and by its implementing regulation⁷³.

After settling and submitting the aid application, the young farmer must get its first VAT number and must join the Trade Register, special farm section, of the CCIAA *Camera di Commercio Industria e Artigianato* (Chamber of Commerce, Industry and Craftsmanship). The investments the farmer is going to realize must be developed through a business plan. In order to be entitled to the payment, the young farmer must meet the following requirements: at the end of the investment programme, the farmer must have employed at least 1.728 hours per year, must have managed the farm as sole proprietor of the business, must have implemented the business plan for at least five years from the start-up and must become a professional farmer (*IAP Imprenditore Agricolo Professionale*)⁷⁴.

The measure assigns a first-settlement allowance, paid immediately after the ranking approval, and another one covering a percentage of the investment amount. This contribution can be entirely granted at the end of the business plan, after the verification of targets and requirements achieved, or partly in advance and the rest at the end, depending on the beneficiary's choice. The payment of the first-settlement allowance and of the advance contribution is subject to the submission of an insurance or bank guarantee in favour of the paying authority, equivalent to 110% of the support amount.

Should the farmer be unable to respect the above requirements, the payment entitlements would be completely deleted.

Many investment typologies are eligible under measures 121 and 311, but we will consider only those related to our case study.

⁷² Tuscany region, *Norme in materia di imprenditore e imprenditrice agricoli e di impresa agricola*, L.R. No. 45/2007, Bollettino Ufficiale della Regione Toscana n. 25 del 06/08/2007.

⁷³ Tuscany region, *Regolamento di attuazione del Capo II della legge regionale 27 luglio 2007, n. 45 (norme in materia di imprenditore e imprenditrice agricoli e di impresa agricola)*, Decreto del Presidente della Giunta Regionale No. 6/R/2008, Bollettino Ufficiale della Regione Toscana n. 5 del 22/02/2008.

⁷⁴ A professional farmer is a person having adequate professional knowledge who is engaged in an agricultural activity, referred to in art. 2135 of Civil Code, directly or as a company partner, for at least 50% (25% in disadvantaged areas) of his/her total working time and who gets from this activity at least 50% of his/her total work-related income.

Investment typologies eligible under measure 121

In measure 121 support will be granted to investments concerning building purchase, construction, renovation or widening, including electric, hydraulic, heating or similar systems. Support will be also granted for land purchase (maximum 10% of total eligible expenditure) and building purchase (maximum 30% of total eligible expenditure).

With regard to zootechnical productions, support is provided for the realization of cattle sheds, including subsidiary fences, multi-purpose husbandry premises, barns and silos.

More payments are granted for agricultural products processing: premises used for storing, processing, packaging and marketing the products.

Other investments are financed by measure 121 such as realizing or improving the conditions of access roads to the holding, electrifying the farm, connecting the farm to public networks, including the internal distribution lines.

Investment typologies eligible under measure 311

Support under measure 311 is granted to those interventions aimed at equipping and furnishing laboratories, workshops and rooms for recreational and tasting events in the estate buildings.

Intervention typologies eligible for contributions in the case study

The investments entitled to payments described in the above measures would be applicable to the case study for the following interventions: purchasing the estate, improving road conditions inside the holding, realizing structures and pens for outdoor pig rearing, realizing a laboratory for meat dissection and packaging, building a storehouse for agricultural equipment and vehicles, equipping the multifunctional laboratory-kitchen and the premises for recreational and catering events.

Considering that the support granted by the measures, excluding the first-settlement contribution, cannot exceed EUR 130.000, only a small part of the investment for the case study is entitled to be financed. Therefore only the investments concerning the restoring of the road conditions and the realization of the laboratory for meat processing will be considered

Checking the requirements for the aid application submission

Before submitting the aid application it is necessary to verify the requirements conformity. First of all the young farmer must achieve professional skill by attending a specific training course and taking a final examination with the provincial commission. Secondly, all the activities the farmer is undertaking must guarantee at least 1.728 hours of work per year. The Rural Development Plan doesn't suggest the calculation method to be used in order to verify this requirement, therefore the annexe A of the regional regulation for the agritouristic activities⁷⁵ has been taken into account for this purpose.

The total number of hours needed to cultivate and manage chestnut and olive trees has been lowered by 50-40% in comparison with the provision of the regional regulation, due to the limited productivity of those plantations. The number of catering and tasting events has been estimated considering these activities two/three years after the start-up.

The estimated total amount of working hours for agricultural and non-agricultural activities of the case study fulfils the minimum requirement in order to submit the aid application (see Table 21).

⁷⁵ Tuscany region, Regolamento di attuazione della legge regionale 23 giugno 2003, n. 30 (Disciplina delle attività agrituristiche in Toscana), Decreto del Presidente della Giunta Regionale n. 46 del 03/08/2004, Bollettino Ufficiale Regione Toscana n. 33 del 13/08/2004.

Table 21 Working hours calculation for the case study, in accordance with regional regulation No. 46/R of 03/08/2004.

| Crop | Surface (ha)/ No. head - hives | hours/ha- head/year | Basic hours/y ear | Processing increase | Marketing increase | hours/year |
|---|--------------------------------------|---------------------------------|-------------------------|------------------------------|---|-----------------|
| Pasture | 3,32 | 15 | 49,80 | | | 49,80 |
| Woodland | 6,74 | 10 | 67,41 | | | 67,41 |
| Chestnut plantation | 3,60 | 80 | 288,26 | | | 288,26 |
| Olive grove | 0,52 | 180 | 93,87 | | | 93,87 |
| Grassland | 0,85 | 15 | 12,72 | | | 12,72 |
| Arable land (cereals) | 3,38 | 25 | 84,47 | | | 84,47 |
| Bees (hives) | 10 | 10 | 100 | 1,10 | 1,20 | 132 |
| Pigs | 20 | 20 | 400 | 1,10 | 1,20 | 528 |
| Total agricultural activity (including 10% increase for management activity) | | | | | | 1.382,17 |
| Activities | No. days- activity | hours/day- activity/ye ar | Basic hours | Mountain area increase | Increase for farms with prevalence of woodland | hours/year |
| Agritourism: recreational and catering activities | 18 | 6 | 108,00 | 1,05 | 1,20 | 136,08 |
| Agritourism: tasting events | 56 | 3 | 168,00 | 1,05 | 1,20 | 211,68 |
| Total activity related to agriculture | | | | | | 347,76 |
| Total working hours/year | | | | | | 1.729,93 |

Estimated contributions for the case study

If we consider the investments to improve road conditions and to realize the laboratory for pig meat processing, the eligible expenditure is about EUR 228.000.

Table 22 Eligible expenditure for measure 112.

| Work description | Total amount € |
|---|-------------------|
| Restoring road conditions (only the part belonging to the estate) and connections to services | 50.880 |
| Realizing a laboratory for pig meat sectioning, packaging and sale | 177.173 |
| Cost for farm investments | 228.053 |

The new regulation on rural development establishes a 100% contribution for non-productive investments and for forest and agricultural infrastructures; for the other investments the contribution is 40%, but the rate can be increased by a further 20% for

young farmers and areas facing natural or other specific constraints. The cumulative rate cannot however exceed 90%. We can therefore suppose a global contribution of 60% for these investment typologies. The previous Rural Development Plan established a 30% contribution rate plus 10% for young farmers, plus 10% for investments in mountain areas, for a total 50%.

Moreover, the new Rural Development Plan allocates a EUR 70.000 first-settlement bonus instead of EUR 40.000.

If we consider the contribution rates fixed by the new rural development while applying the maximum ceiling of 2007-2013 RDP, we obtain a potential EUR 200.000 contribution for the case study (see Table 23):

Table 23 Calculation of the contribution from measure 112.

| Work description | Total amount € | % contribution | Contribution amount |
|--|---------------------------|---------------------------|--------------------------------|
| Agricultural infrastructure (road) | 50.880 | 100 | 50.880 |
| Other investments (meat processing facility for cutting, preparation, packaging and selling) | 177.173 | 60 | 106.304 |
| Total investment | 228.053 | | 157.184 |
| Contribution ceiling | | | 130.000 |
| First settlements bonus | | | 70.000 |
| Total contribution | | | 200.000 |

Scores and ranking under measure 112

Applications that are entitled to payments are awarded a score and enter a specific ranking list. Aid support is granted to applicants ranking first in the list, until the available financial resources are exhausted.

Scores are established in accordance with specific criteria set up in the RDP. As far as measure 112 is concerned, Tuscany region has fixed different priorities, notably the RDP gives priorities to skilled young farmers and/or young farmers with previous working experience in the agricultural sector, to interventions in particular areas such as disadvantaged ones, to investments aimed at improving safety at work and/or at protecting environment (renewable energy plants, energy and water saving systems), to investments in priority sectors (cattle milk, sheep milk, olive and cereal production), etc.

Considering the criteria established under measure 112 of RDP, the application submitted by the farmer of our case study would only get a score of 3 points. The last ranking list

approved for measure 112 included 41 applications, the first of which had 28 points and the last 0 points. All these applications have been financed, because the budget for this measure was greater than the applications entitled to payments.

Measure 122 – enhancing forests economically

Support under this measure will be granted for interventions similar to those included in measure 121, but merely aiming at enhancing woodland and woodland products.

The objective of this measure is precisely the increase of forest economic value through the consolidation and development of farms over the territory.

Also forest private owners and tenants can be beneficiaries of this measure.

Support will be distributed to all interventions aimed at enhancing and improving the forest structures inside the farm, such as realizing, improving, widening the forest permanent road network, purchasing land and buildings, realizing functional structures such as warehouses for equipment and vehicles.

The financial contribution will only cover those interventions that are necessary for storing, processing or selling the secondary forest products of the farm, or anyway helping the development of farm activities concerned with forestry.

Support is also granted to those interventions aimed at restoring productivity in suitable woodland which is currently uncultivated, such as abandoned chestnut plantations. The restoring of abandoned chestnut plantations is obtained by means of cultivation interventions such as cutting suffering or dead trees, cutting arboreal trees of other species or pruning branches in order to heal and/or shape the trees.

Contributions will also cover the expenses for cleaning and brush cutting woodland, cutting arboreal vegetation, including the removal and disposal of waste material, within 20% of eligible expenditure.

Interventions typologies eligible for contribution in the case study and calculation of the estimated contribution

Only the interventions aimed at restoring the chestnut plantations are eligible for contributions. Purchasing the buildings, restoring road conditions and realizing a warehouse are not entitled to financial support because they are not exclusively functional to the measure objectives.

Table 24 Eligible expenditure for measure 122 and its contribution.

| Intervention description | Unit price | M.U. | Surface /No. Trees involved | Amount | % of eligible expenditure | Eligible expenditure |
|--|-------------------|-------------|------------------------------------|---------------|--|-----------------------------|
| Eliminating bush and arboreal vegetation; removal of waste material | 2.564 | €/ha | 3,60 | 9.240 | 20 | 1.848 |
| Cutting dead or suffering chestnut trees; removal of waste material | 197 | €/tree | 28,83 | 5.676 | 100 | 5.676 |
| Pruning chestnut trees by cutting branches, in order to heal, rejuvenate and re-balance the tree foliage. Removal and disposal of waste material | 57 | €/tree | 691,81 | 39.453 | 100 | 39.453 |
| Costs to restore the chestnut plantation | | | | 54.369 | Expenditure eligible for contribution | 46.977 |
| 60% contribution on eligible expenditure | | | | | | 28.186 |

Contribution will not cover the land purchase either, because this typology of intervention is only admitted when it improves forest structures.

Contribution amounts to 50% of the eligible cost, increased to 60% for investments in mountain areas.

Considering that eliminating bush vegetation is eligible only for 20%, the amount eligible for the chestnut plantation is about EUR 47.000 (see Table 24), with a contribution of about EUR 28.000.

Scores and ranking of measure 122

Support under measure 122 gives priority to applications concerning the following interventions: investments aimed at improving safety conditions at work, investments in disadvantaged or mountain areas or in municipalities having a minimum woodland index of 47%, in case of organic producers or products with designation of origin, investments

made by professional farmers or direct farmers, in case of young farmers or of farms established 36 months before the application, etc.

Considering the criteria established by the Rural Development Plan, the farmer's application of the case study would have a score of 12 points. The last ranking list approved for measure 122 included 37 applications, the first of which had 36 points, the penultimate 13 and the last 8 points. All these applications have been financed, because the budget for this measure was greater than the applications entitled to payments.

Measure 211 Allowances for mountain areas

Support under measure 211 is granted annually to farms in mountain areas carrying out zootechnical activities, which commit themselves to maintaining the livestock farming for at least 5 years from the first aid application. The payment is made for surface hectare of arable land and/or pasture in a mountain area. In order to submit the application, the farmer must have at least 5 hectares of arable land and/or pasture in mountain areas and at least 5 Livestock Units (LSU). With regard to pig farming, the support is only granted for indigenous species. The ratio between the number of LSU and the number of hectares of arable land and pasture must be between 0,25 and 2.

The maximum contribution per hectare in mountain areas, as established by the new rural development, is EUR 450 instead of EUR 250⁷⁶. The Rural Development Plan sets up an annual maximum contribution of EUR 15.000 per farm.

Checking the requirements to submit the aid application and calculation of the estimated contribution

The case study can submit an aid application since its arable land and pastures are more than five hectares, the LSU-Hectare ratio is between 0,25 and 2 (see Table 25) and besides indigenous pigs will be reared. The compensation allowance, with a payment of 450 EUR/ha, will be 3.015 EUR/year.

⁷⁶ The RDP 2007-2013 of Tuscany region establishes that the maximum allowance in mountain areas is Eur100/ha/year, even if the Reg. (EC) No. 1698/2005 set up a maximum limit of EUR 250.

Table 25 Calculation of LSU/hectare ratio to check the requirements of measure 211.

| Number head | No. LSU/head | Tot. LSU |
|--------------------------------|---------------------|-----------------|
| 20 | 0,30 | 6 |
| Arable land and pasture | | 6,70 |
| LSU/hectare ratio | | 0,90 |

Scores and ranking of measure 211

Concerning measure 211 Tuscany region has given different priorities, in particular to those farms whose husbandry is concerned with breeding animals entered in a Herd Book or in a Public Register, where most animals belong to indigenous breeds, and whose number is greater than 7 LSU, etc. Considering the criteria established by the Rural Development Plan, the application submitted by the young farmer of the case study would get 26 points.

The last ranking list approved for measure 211 included only one application with 18 points, which has been financed.

Measure 214 – agri-environment payments

This measure is related to different activities, one of which is safeguarding genetic animal resources native to Tuscany territory. Support under this measure is only granted to those farms that rear exclusively breeding animals, and not fattening ones, therefore the case study is not entitled to payment.

Measure 227 – non-productive investments

Interventions under this measure are aimed at improving, protecting and enhancing forests, by fostering the public enjoyment of woodland.

Also agricultural and forest farmers, owners and tenants, are beneficiaries of this measure.

This measure too involves different investment typologies, among which eliminating bush vegetation, thinning or pruning arboreal vegetation, grass-mowing in areas comparable to woodland in accordance with forest regional law, realizing new footpaths and picnic areas.

The new rural development establishes a contribution covering 100% of costs (instead of 70%) for non-productive investments linked to the achievement of agri-environmental-climate objectives.

Intervention typologies entitled to payment and estimated contribution of the case study

The estimated cost for the interventions carried out in areas comparable to woodland, including shrubs elimination, dead trees removal and arboreal trees arrangement, amounts to EUR 5.891 (see Chapter 2.4). These interventions are eligible because they recreate open areas inside woodland, thus increasing the territory variability and biodiversity.

The estimated cost for realizing new footpaths and picnic areas is EUR 15.355 (see Chapter 2.4). This intervention is eligible because it enhances woodland public utility and promotes forest recreational use. The total contribution would be EUR 22.704.

Scores and ranking of measure 227

With reference to measure 227, Tuscany region has given different priorities, in particular the Rural Development Plan gives priority to the applications whose investments are directed to disadvantaged or mountain areas, to municipalities with woodland index higher than 47%, to agri-forest farms, etc.

Considering the above priorities for the case study, the application submitted by the young farmer would get 16 points.

The last ranking list approved for measure 227 included 3 applications, the first of which had 29 points and the last 27 points. All these applications have been financed, because the budget for this measure was greater than the applications entitled to payments.

3.3 Summary of supports coming from the CAP first and second pillars

Considering a total investment of about EUR 1.120.000 to restore the estate and to develop a farm, through the measures of the second pillar of the new CAP, we can estimate a financial contribution of about EUR 250.000, that is 22% of the investment.

Table 26 Summary of the economic support from the second pillar of the CAP and %incidence on total investment.

| | |
|--|------------------|
| Total expenditure for restoring the estate and starting the farm | 904.519 |
| Cost of estate purchase | 213.164 |
| Total investments | 1.117.683 |
| Contribution under measure 112 | 200.000 |
| Contribution under measure 122 | 28.186 |
| Contribution under measure 227 | 22.704 |
| Total contributions on investments | 250.890 |
| Contribution % incidence on total investment | 22 |

Direct payments from the first pillar and the annual allowance from the second pillar amount to about 5.600 EUR/year.

Table 27 Amount of the annual payments of the first and second pillar of the CAP

| | |
|---|--------------|
| Basic payment and greening | 2.132 |
| Payment for young farmers | 533 |
| Allowances for mountain area agriculture | 3.015 |
| Total direct payments and allowance (€/year) | 5.680 |

FINAL REMARKS

Is the Common Agricultural Policy able to meet farms' requirements? This is the basic question of this thesis, and, in order to give an answer through a specific case study, the approach has been necessarily comprehensive and has involved issues directly linked to the CAP as well as subjects indirectly concerned with it.

With regard to the instruments of the first pillar, we can say that, in general, in mountain areas, where the estate surfaces are very small, the annual direct payment represents a very little income support. The specific payment to young farmers, introduced for the first time in the first pillar, is even less effective, since for the case study it would amount to about 500 EUR/year. All this confirms that, despite the many reforms, the CAP rewards and gives priority to land cultivation and large farms.

In the second pillar, on the contrary, support given to young farmers is without any doubt the most effective and economically important measure. In this case different issues not directly linked to the CAP are involved. In fact, in order to be entitled to payment, the beneficiary is subject to different obligations and must develop an investment plan within three years from the application submission. In the case study, within this period, the beneficiary must establish a sole-proprietorship company, get his/her VAT number, join INPS, purchase the estate, obtain all the required authorizations, carry out all the interventions and investments, start the agricultural activity in order to guarantee, at the end of the business plan, at least 1.728 working hours/year. In the twelve months before the application submission, it is possible to start preparatory activities for investments.

The implementation of scheduled obligations is primarily conditioned by the granting of the authorizations necessary for the interventions. For instance, interventions on areas comparable to woodland facing landscape constraints are subject to the municipality authorization. This authorization is given through a landscape report, whose presentation must necessarily be approved in advance by the municipality itself. Only after the municipal approval the farmer can ask the competent bodies the authorization to transform the area. Besides, since the area is subject to hydrogeological constraint, this application must be provided with, among other things, a comprehensive geological study, demonstrating that the interventions will not affect the hydrogeological planning or the stability of slopes. This study, as well as the landscape evaluation, are focal points of the

intervention on environment sustainability and of the subsequent granting of authorization.

Afterward other interventions need to be authorized: building renovation, realizing a new warehouse, health conditions of the pig meat laboratory and of the multifunctional kitchen-laboratory, etc.

Examining all the documentation and developing the procedure of authorization would probably take a long time to the competent offices. Both this long procedure and the long time needed to carry out the estimated interventions, that can only begin after the application submission, make it hard to believe that the agricultural activity would be started within the times scheduled by the business plan. Or maybe the agricultural activity would be started, nevertheless without being able to fulfil the measure requirement of a minimum quantity of working hours, thus inevitably entailing the payment revocation.

When considering comprehensive investments and interventions such as those of the case study, it would be advisable for the region, with its new Rural Development Plan, to grant an extension of time limits for the business plans or to establish longer terms in the case of important interventions such as the case study.

Considering the current negative scenario in the case of a “complete intervention” carried out under the above obligations, it is advisable to examine other options. Options should aim at achieving the greatest (not only immediate) benefits within the available measures, always bearing in mind the time constraints of both bureaucratic procedures and intervention realization.

Upon careful analysis of the study, the choice to submit the aid application only after restoring the estate could satisfy our objective. In particular, the support would be granted only for the structural interventions required to develop the agricultural activity (equipping workshops, pig breeding facilities and apiary). The contribution, as a proportion of the intervention value, would amount to about EUR 54.000. In the same way, the first-settlement bonus, granted proportionally to the overall investment, would decrease of about 50%. The overall support granted under the measure would therefore decrease from EUR 200.000 to about EUR 89.000.

Defining the priorities given under the different measures is extremely important in order to evaluate the scores to be assigned to the different applications. Support under the measure for young farmers settlement would grant to our case study a score of only 3

points. The interventions on the estate would not be given priority because they are not realized by a young farmer having professional skill nor agricultural working experience, and because these interventions do not fall within regional priority sectors (cattle milk, sheep milk, olive and cereal production). Although in the last tender of 2007-2013 planning support was granted to all eligible applications, including those with a score of 0 points, since the available economical resources could satisfy all the eligible applications, this is most unlikely to be achieved in the next programming. We can hardly believe, then, that the case study would be financed.

Since the measure concerned has the objective to promote farms modernization and innovation, the technical-political choice to grant preference to some sectors limits on the contrary the innovativeness of the agricultural sector that the measure would like to pursue.

The reason for this choice is clear – it is aimed at making an efficient use of the relevant budget and avoiding support to unrealistic investments – nevertheless the way to implement such objectives is incorrect. If farm competitiveness and innovation have to be promoted, priority must not be given to the investment sector, but to the project itself, evaluating its capability to achieve the objectives established by the measure and rewarding those initiatives that are likely to have a successful development. In this case the business plan should be evaluated through a more strategic approach, needing greater competence and responsibilities and therefore constituting a greater risk for the government bodies. These are the reasons why priority sectors have been introduced.

All considered, the combination of some critical points – the bureaucratic constraints and the long time to obtain the necessary authorizations, the time needed to realize the business plan interventions that are not compatible with time limits and conditions established by the tenders, the priority parameters – reduce considerably, or invalidate, the effectiveness of interventions. This undermines the policy efforts aimed at sustaining rural areas management and development.

The new CAP measures concerned with forest investments adopt parameters and payment rates (60% and 100%) that guarantee an effective support to interventions, even to the project of the case study. Although these measures are favouring forest farms and associations, the case study should however achieve an average-low rank position and consequently have good opportunities to be eligible.

Regarding the second big issue, that is income supplement, the new CAP measures concerning rural areas allowances has almost doubled the payment per hectare and, for the case study, this would guarantee about EUR 3.000 per year. The criteria adopted for this measure suggest that the case study would probably obtain a high score. Some difficulties could however emerge, especially in the start-up, where at least 5 LSU (corresponding to about 17 pigs for fattening) are required by the measure. In order to avoid this problem it could be useful to submit the aid application some years after the farm start-up.

In conclusion, with reference to the second pillar, most interventions planned in the case study are entitled to payment. Support is not given, on the contrary, for restoring grassland, arable land, olive grove and residential buildings. We can therefore assume a good, although not total, correspondence between the needs of a farm like the one of the case study and the CAP objectives. Support under the second pillar given to the case study would be about 20%, but, considering priorities and obligations set up by the Rural Development Plan of Tuscany region combined with the complex and comprehensive procedure in order to obtain the authorizations required for the planned interventions, the case study is unlikely to be given a support under the young farmers scheme, which would grant the greatest financial contribution. Support given by first pillar direct payments, and above all the compensation allowance coming from the second pillar would constitute an annual income supplement of about EUR 5.600 for five years.

For the young farmer of the case study the whole project do not seem practicable. In fact the amount required to buy the holding and realize the planned investments is much greater than the value of the holding itself, therefore, he cannot have access to credit instruments to develop the project. The case study seems unrealistic, unless the farmer has his/her own capital to invest.

The project could however be implemented if the investor were a developed farm, having its own land and buildings, where the young farmer were the owner or the legal representative, already having agricultural professional skill and competence. In this case the new CAP could support more effectively the farm, although problems linked to the authorizations would remain.

All things considered, some conclusions can be drawn about the CAP effectiveness in fulfilling farms requirements, with particular regard to those rural areas represented by

the case study. Support to farms is crucial in marginal and disadvantaged area, where there has been a progressive abandonment of activities and land, therefore leading to a lack of care and maintenance, essential for the territory safeguard.

The case study has proved that restoring abandoned holdings is very complex and expensive, making it unprofitable and discouraging the most possible investors. The case study shows that the CAP alone is inadequate to the purpose of promoting and revitalising agricultural activities in marginal areas.

It is evident that evaluations on the actual possibility to realize the interventions and on their sustainability are necessary – for instance assessing hydrogeological feasibility or the adequacy of food processing structures – but difficulties linked to bureaucratic procedures imply additional costs that discourage entrepreneurs. Considering the great capital investment necessary to restore an estate like the case study, the business activities are expected to be able to generate a satisfactory income. This is the reason why the only cultivation/production of raw materials is insufficient, due to the limited surface. Consequently it is necessary to take into account other activities, linked to agriculture, which might be able to increase the value added generated by the business, both by increasing the product value (advanced product processing) and by shortening the distribution chain.

Finally, access to credit instruments to support farms investments is a major issue.

It is evident that the CAP support can only be granted to a little part of farms initiatives, especially in the case of the farm typology of our case study, therefore it cannot be the only instrument to promote and support business and territory management in rural marginal areas. Different national policies should integrate the CAP instruments in order to meet the socio-economical-environmental targets, especially in rural marginal areas, that too many times have been expressed, but never effectively pursued by means of adequate policies and resources.

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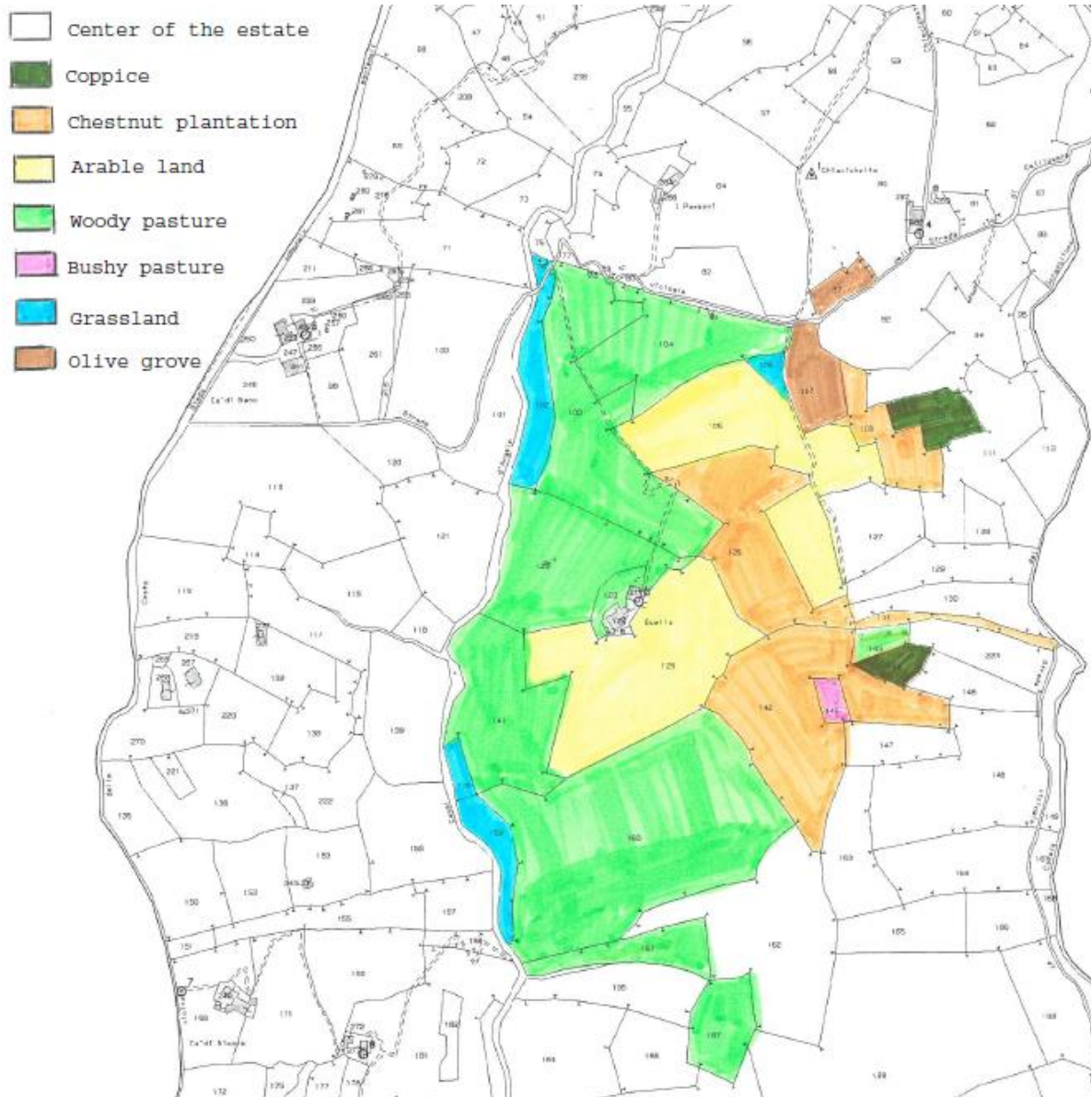
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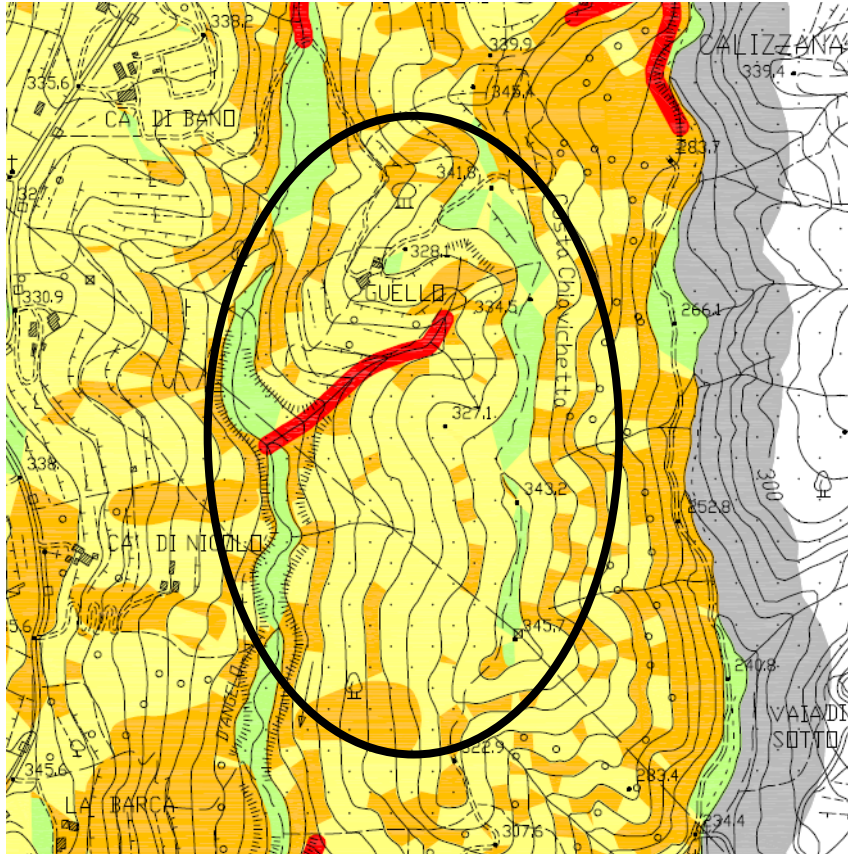
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ANNEXES

Annexe 1 – Land quality according to the cadastral certificates.



Annexe 2 – Excerpt from the map of geomorphological dangerousness



LEGENDA

CLASSI DI PERICOLOSITA' GEOMORFOLOGICA



G4

Aree in cui sono presenti fenomeni attivi e relative aree di influenza. In particolare sono comprese: frane attive comprensive del corpo di frana, della corona di distacco e delle relative aree di possibile evoluzione del dissesto; aree a franosità diffusa, con relative aree di possibile evoluzione del dissesto; scarpate attive con relativa area di possibile evoluzione ed influenza; ripe fluviali in cui siano in atto fenomeni di erosione laterale di sponda da parte dei corsi d'acqua (con relativa area di possibile evoluzione); alvei con accentuata tendenza all'approfondimento.



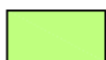
G3

Aree in cui sono presenti fenomeni quiescenti; aree con indizi di instabilità connessi alla glaciatura, all'acclività, alla litologia, alla presenza di acque superficiali e sotterranee, nonché a processi di degrado di carattere antropico; aree interessate da intensi fenomeni erosivi e da subsidenza. In particolare sono comprese: frane quiescenti comprensive del corpo di frana e della corona di distacco; terreni argillosi, argillitici alterati, limosi, detritici a prevalente matrice argillosa e terreni a struttura caotica, con pendenze superiori al 15%; terreni sabbiosi, sabbioso-ghiaiosi, terreni detritici a prevalente matrice sabbiosa, con pendenze superiori al 25%; terreni litoidi molto fratturati o di scarsa qualità, terreni ghiaiosi addensati, con pendenze superiori al 35-40%; terreni litoidi non o poco fratturati e di buona qualità, con pendenze superiori al 45-50%; aree interessate da fenomeni di erosione profonda; aree interessate da rilevanti manifestazioni antropiche, quali rilevati, riempimenti, scavi e cave; corpi d'acqua e relativi paramenti di valle; frane di piccole dimensioni, frane non dettagliatamente cartografabili e/o puntuali; scarpate di erosione non attive o quiescenti.



G2

Aree in cui sono presenti fenomeni franosi (attivi) stabilizzati (naturalmente o artificialmente); aree con elementi geomorfologici, litologici e glaciali della cui valutazione risulta una bassa propensione al dissesto. In particolare sono comprese: aree interessate da frane non attive (frane naturalmente e artificialmente stabilizzate); aree con erosione superficiale, terreni argillosi, argillitici alterati, limosi, detritici a prevalente matrice argillosa e terreni a struttura caotica, con pendenze inferiori al 15%; terreni sabbiosi, sabbioso-ghiaiosi, terreni detritici a prevalente matrice sabbiosa, con pendenze inferiori al 25%; terreni litoidi molto fratturati o di scarsa qualità, terreni ghiaiosi addensati, con pendenze inferiori al 35-40%; terreni litoidi non o poco fratturati e di buona qualità, con pendenze inferiori al 45-50%.

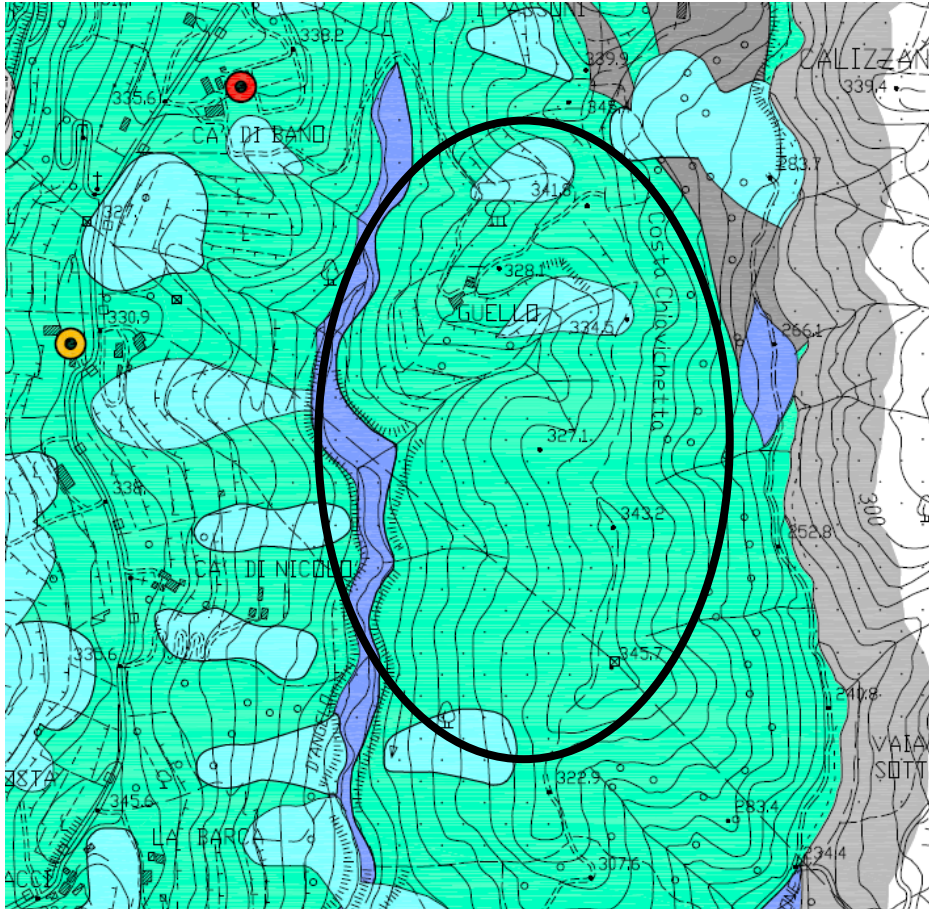


G1

Aree pianeggianti e sub-pianeggianti in cui i processi geomorfologici e le caratteristiche litologiche e/o glaciali non costituiscono fattori predisponenti al verificarsi di movimenti di massa.







In via indicativa si possono considerare come sub-pianeggianti in relazione alle caratteristiche litologico-tecniche: terreni argillosi, argillitici alterati, limosi, detritici a prevalente matrice argillosa e terreni a struttura caotica, con pendenze inferiori al 5%; terreni sabbiosi, sabbioso-ghiaiosi, terreni detritici a prevalente matrice sabbiosa, con pendenze inferiori al 10%; terreni litoidi molto fratturati o di scarsa qualità, terreni ghiaiosi addensati, con pendenze inferiori al 10%; terreni litoidi non o poco fratturati e di buona qualità, con pendenze inferiori al 10%.

Annexe 3 – Excerpt from the map of aquifers vulnerability




LEGENDA

CLASSI DI VULNERABILITA' DEGLI ACQUIFERI

| | | |
|---|----------------------|--|
|  | ELEVATA | Vulnerabilità associata a depositi alluvionali attuali e terrazzati, nonché accumuli eterogenei ed eterometrici di versante, caratterizzati dalla presenza prevalentemente di granulometrie comprese tra 2 e 0,06 mm (ghiaie, detrito e sabbie). A tali materiali è riconducibile una permeabilità superiore a 10 ⁻³ m/s. |
|  | ALTA | Vulnerabilità associata a depositi eluvio-colluviali, glaciali e periglaciali, caratterizzati dalla presenza prevalentemente di granulometrie superiori a 2 mm (ciottoli, blocchi, ghiaie e detrito di varia pezzatura) e secondariamente da frazioni limoso-argillose. A tali materiali sono associabili permeabilità comprese tra 10 ⁻³ e 10 ⁻⁴ m/s. |
|  | MEDIO - ALTA | Vulnerabilità associata a depositi di versante e depositi gravitativi di versante; i primi sono costituiti da detrito di falda nel quale risultano prevalenti elementi lapidei grossolani immersi in una matrice limosa a tratti limoso-argillosa; i secondi sono costituiti da materiali a consistenza limitata o nulla, di natura limoso-sabbiosa e secondariamente argillosa con elementi lapidei grossolani. A questo tipo di depositi è riconducibile una permeabilità compresa tra 10 ⁻⁴ e 10 ⁻⁵ m/s. |
|  | MEDIA | Vulnerabilità associata a depositi ghiaioso-sabbiosi, talora limosi, localmente cementati, continentali pleistocenici; a depositi incoerenti entropici; a complessi rocciosi fratturati. Quest'ultimo sono rappresentati dai flysch arenacei del dominio ligure e toscano-umbro. Si ipotizza che la permeabilità dei depositi e delle unità geologiche sopra citate possa variare tra 10 ⁻⁵ e 10 ⁻⁶ m/s. Tali valori saranno variabili a seconda del grado di fratturazione e del rapporto arenaria/argillite presente nell'ammasso roccioso frisciolde. |
|  | MEDIO - BASSA | Vulnerabilità associata a depositi gravitativi di versante e depositi eluvio-colluviali originatisi dall'alterazione di substrato frisciolde costituito prevalentemente o pressoché totalmente da livelli argillitici. Perciò si ipotizza che la permeabilità dei depositi summenzionati possa variare tra 10 ⁻⁶ e 10 ⁻⁷ m/s. |
|  | BASSA | Vulnerabilità associata ad unità geologiche, con struttura ordinata o caotica, costituite prevalentemente o pressoché totalmente da livelli argillitici, nonché ad unità costituite da materiali granulari cementati e originatisi da frane sottomarine. Si presume che la permeabilità di tali formazioni sia inferiore a 10 ⁻⁷ m/s. Perciò le formazioni associabili a classe di vulnerabilità bassa possono manifestare talora impermeabilità. |

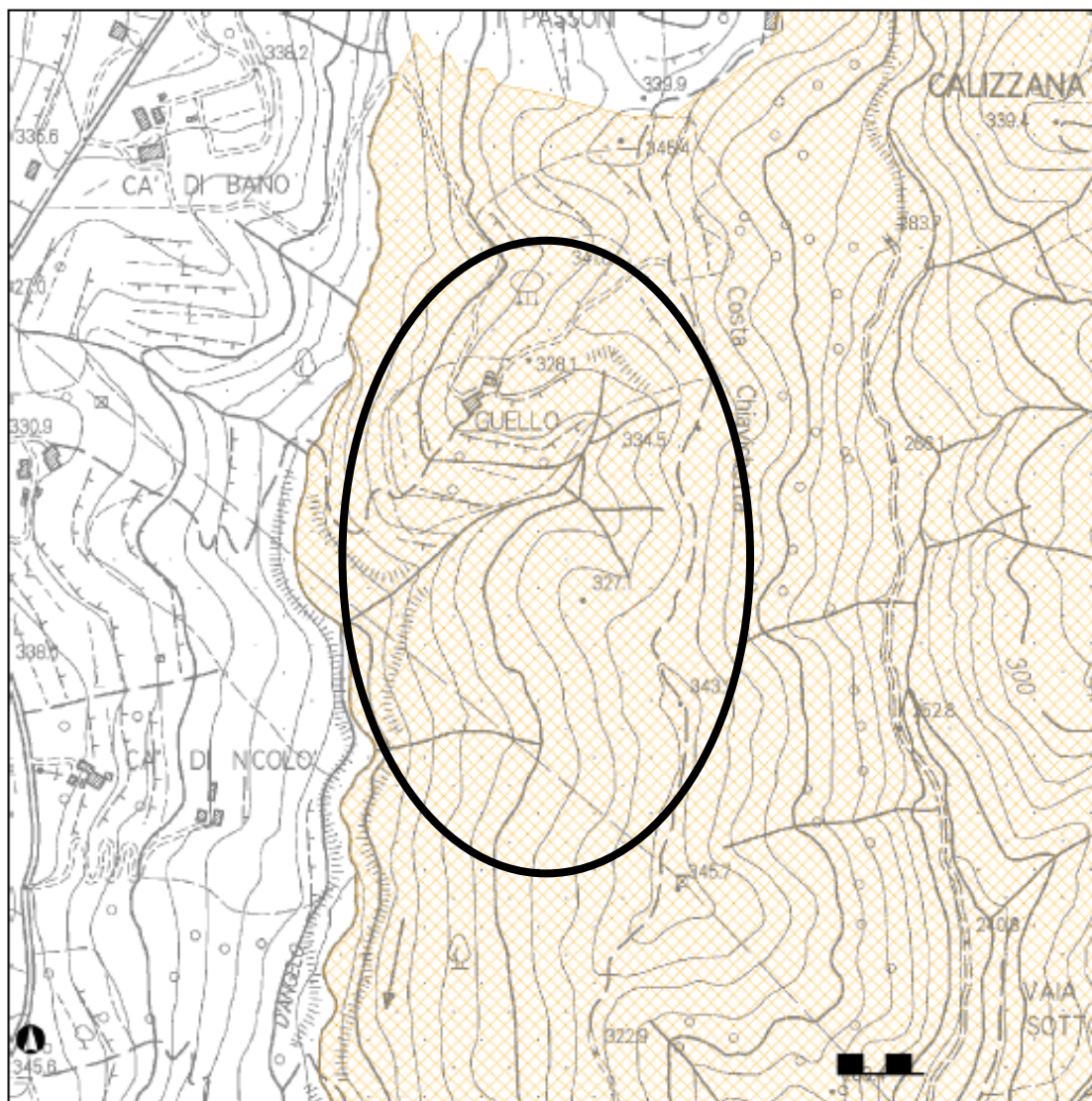
Simbologia punti d'acqua

Pozzi  Pozzi ad uso domestico

 Pozzi ad uso non definito

Annexe 4 – Excerpt from the map of hydrogeological constraints.

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Vincolo Idrogeologico



CTR 10K 1995-98

High : 0



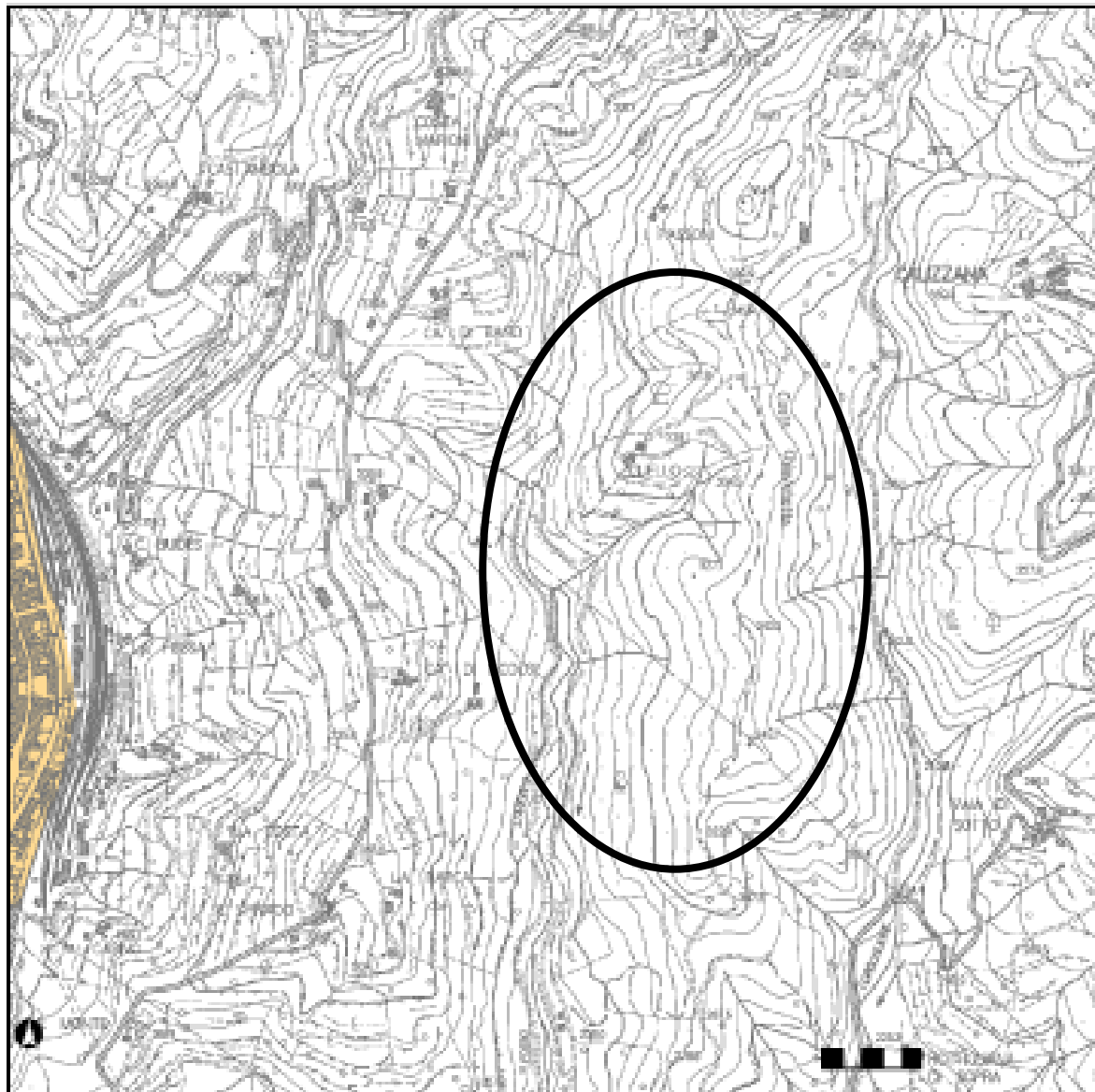
Low : 0

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Annexe 5 – Excerpt from the map of archaeological constraints.

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CTR 10K 1995-98



Punti Vincolo Archeologico



Area Vincolo Archeologico

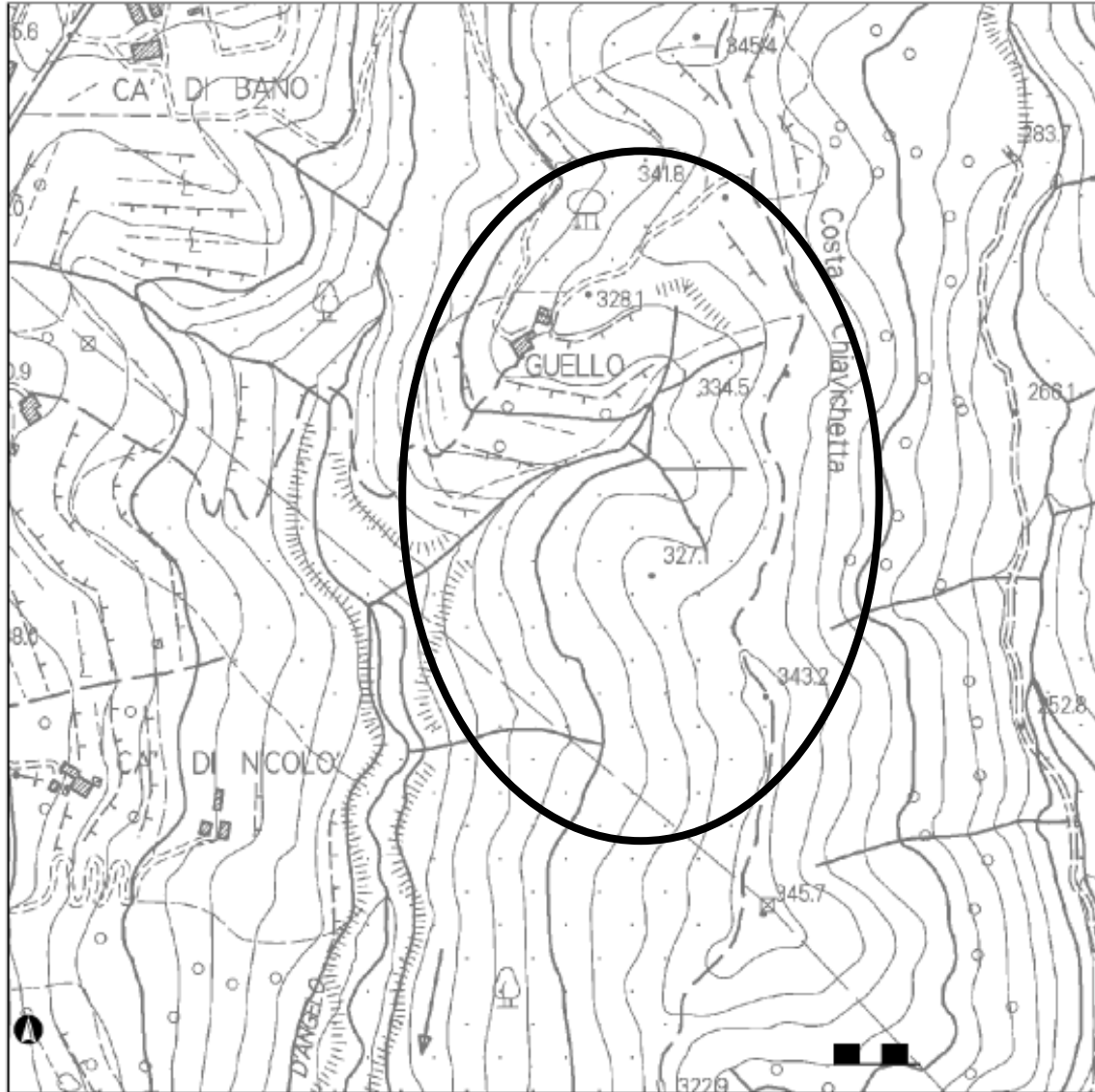


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Annexe 6 – Excerpt from the map of Sites with Regional Interest (SIR).

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SIR



CTR 10K 1995-98

High : 0



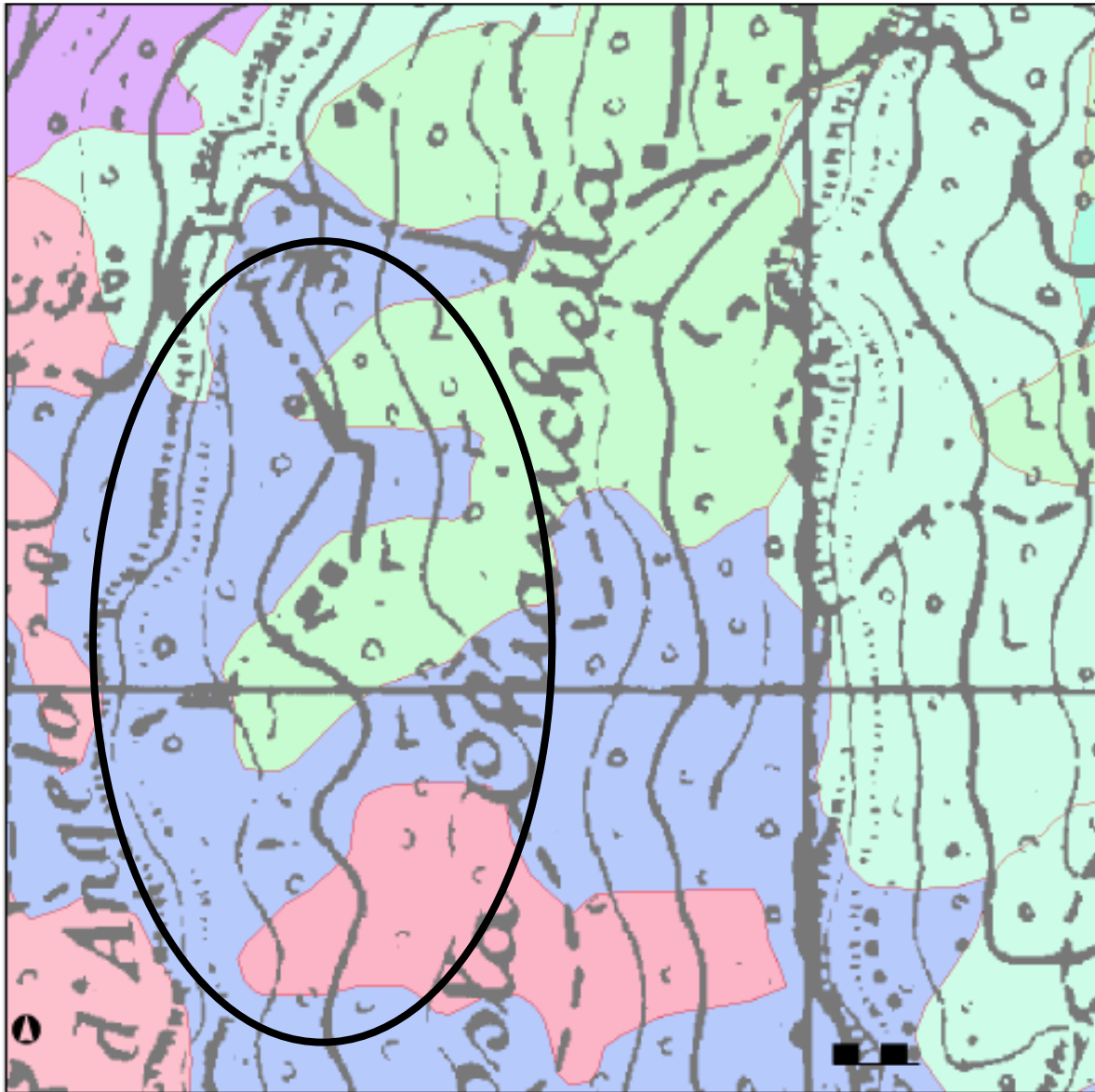
Low : 0



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IGM 25K 1984

- High : 1
- Low : 0

USO DEL SUOLO 1985

- Affioramento roccioso
- Area denudata con erosione diffusa
- Area estrattiva
- Area non fotointerpretabile

USO DEL SUOLO 1985 (continued)

- Bosco d'alto fusto di conifere rado (85%-60%)
- Bosco d'alto fusto di latifoglie degradato o aperto (60%-20%)
- Bosco d'alto fusto di latifoglie folto (100%-85%)
- Bosco d'alto fusto di latifoglie rado (85%-60%)
- Bosco d'alto fusto misto

USO DEL SUOLO 1985 (continued)

- Pascolo arborato
- Pascolo nudo e cespugliato
- Pioppeto ed altri arboreti da legno
- Prato-pascolo e prato stabile
- Rimboscimento e novelleto
- Seminativo arborato a frutteto ed altri
- Seminativo arborato a frutteto ed altri in stato di abbandono

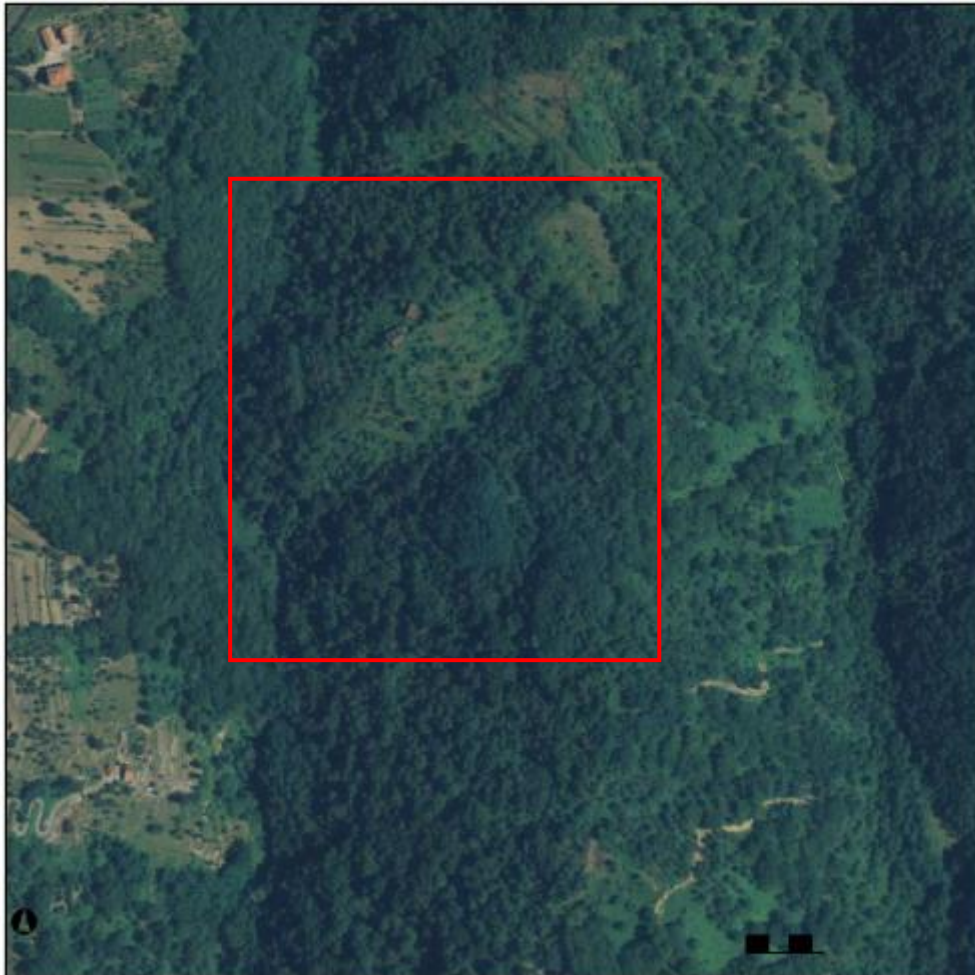
-  Area urbanizzata ampliata con aree a bassa densità
-  Aree relative a campeggi
-  Bosco ceduo
-  Bosco ceduo avviato all'alto fusto o invecchiato
-  Bosco ceduo degradato o aperto (60%-20%)
-  Bosco ceduo folto (100%-85%)
-  Bosco ceduo rado (85%-60%)
-  Bosco d'alto fusto di latifoglie
-  Bosco d'alto fusto di conifere
-  Bosco d'alto fusto di conifere degradato o aperto (60%-20%)
-  Bosco d'alto fusto di conifere folto (100%-85%)
-  Bosco d'alto fusto misto degradato o aperto (60%-20%)
-  Bosco d'alto fusto misto folto (100%-85%)
-  Bosco d'alto fusto misto rado (85%-60%)
-  Castagneto da frutto
-  Corpo d'acqua , laghi e bacini artificiali
-  Corso d'acqua e canali
-  Dune costiere e spiagge
-  Formazione arborea d'argine, di ripa e di golena
-  Frutteto in coltura specializzata
-  Incolto produttivo
-  Insediamenti prevalentemente produttivi e servizi a questi assimilabili
-  Insediamenti prevalentemente residenziali e servizi a questi funzionalmente connessi
-  Oliveto in coltura specializzata
-  Oliveto in coltura specializzata in stato di abbandono
-  Oliveto-Vigneto in coltura specializzata
-  Seminativo arborato a vite
-  Seminativo arborato a vite in stato di abbandono
-  Seminativo arborato ad olivo
-  Seminativo arborato ad olivo e vite
-  Seminativo arborato ad olivo e vite in stato di abbandono
-  Seminativo arborato ad olivo in stato di abbandono
-  Seminativo semplice asciutto
-  Seminativo semplice asciutto in stato di abbandono
-  Seminativo semplice irriguo e/o aree di bonifica
-  Viale parafuoco, pista da sci
-  Vigneto in coltura specializzata
-  Vigneto in coltura specializzata in stato di abbandono
-  Vivaio e Serra

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Annexe 8 – aerial photograph.

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CTR 10K 1995-98

■ High : 0

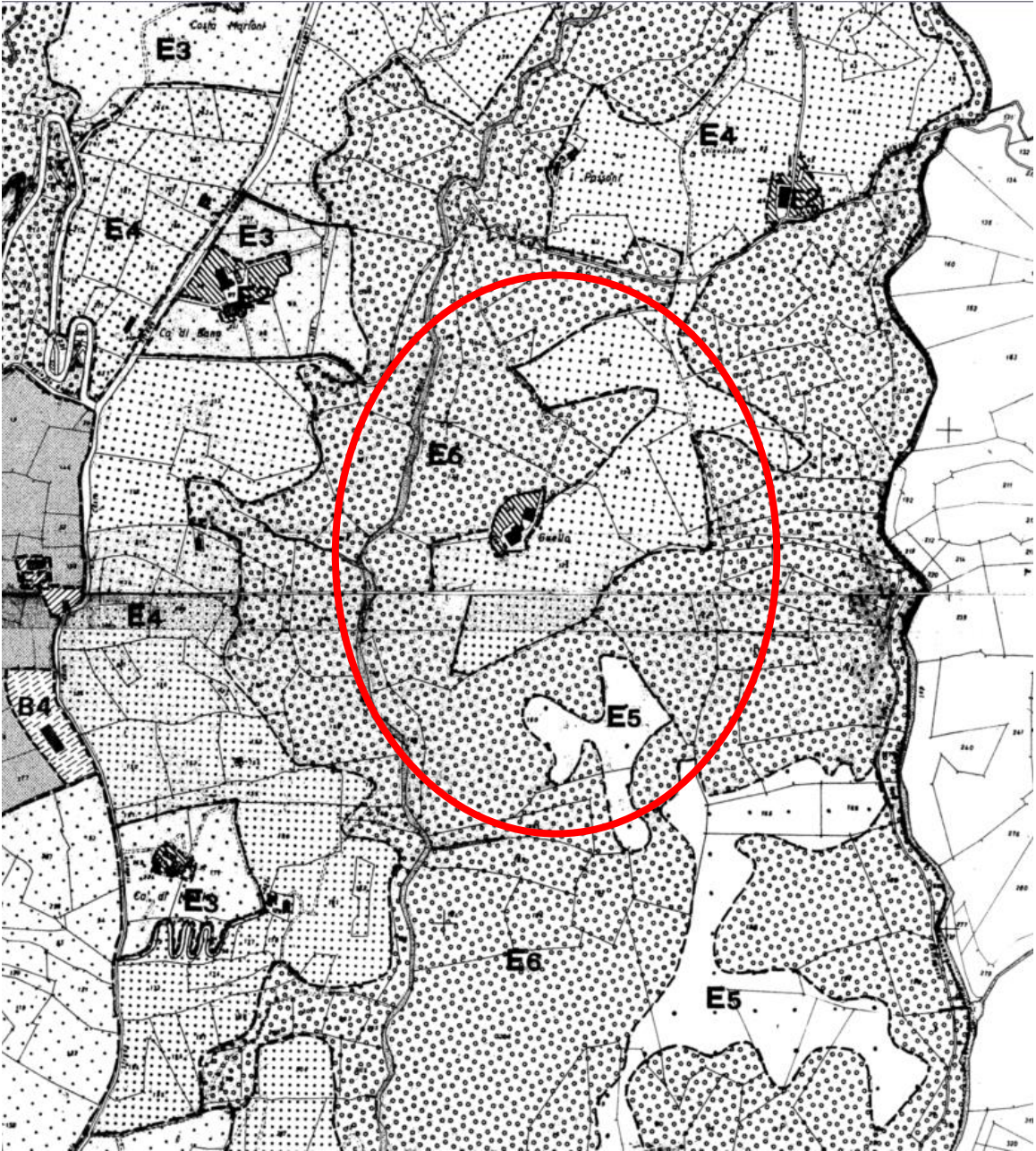


■ Low : 0

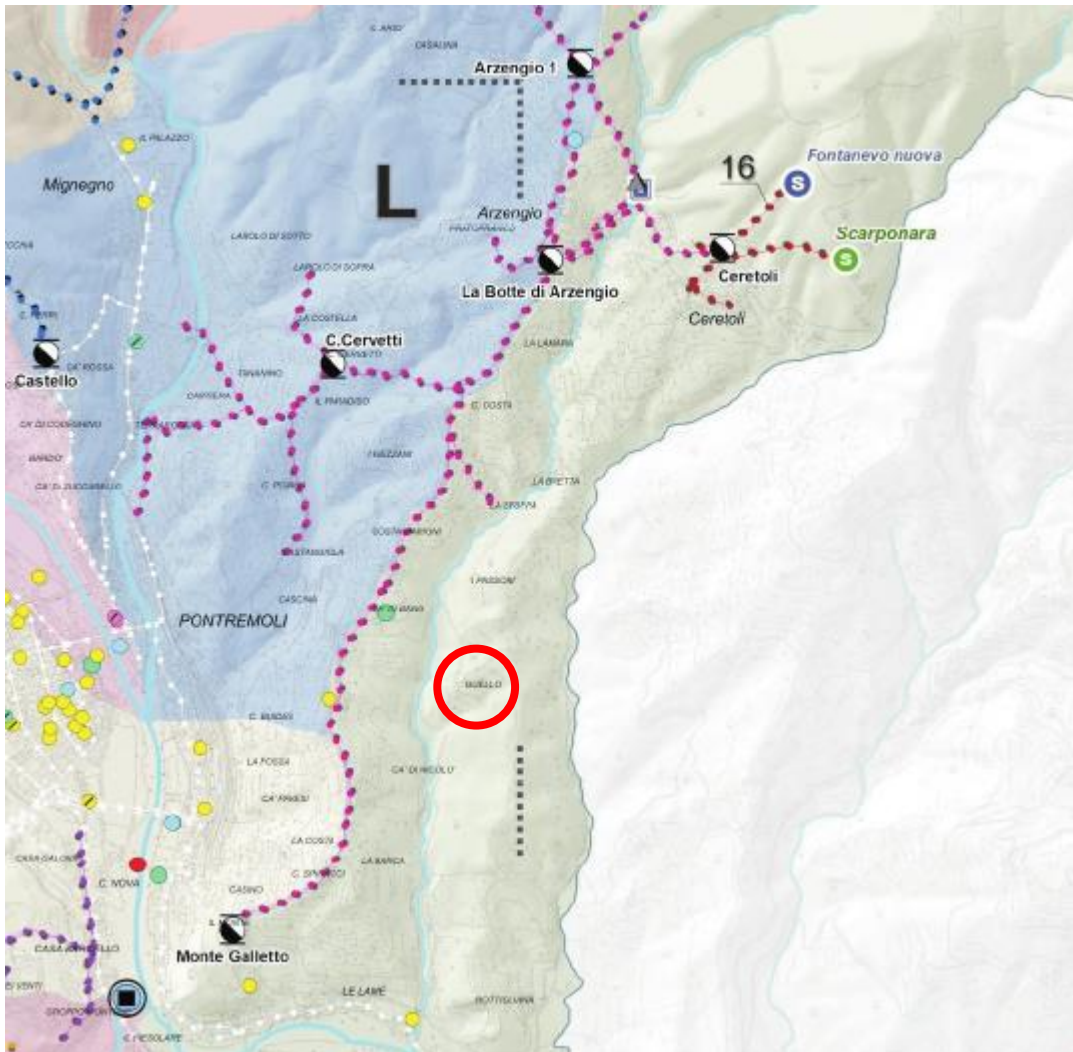
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Annexe 9 – Excerpt from the General Structure Plan (PRG).



Annexe 10 – Excerpt from the map of water system network.



| | |
|--|---|
| <p>Sorgenti e pozzi segnalati dal Comune di Pontremoli</p> <ul style="list-style-type: none"> S Sorgenti acquedottistiche ■ Pozzi acquedottistici | <p>Sorgenti e pozzi segnalati dalla Provincia di Massa</p> <ul style="list-style-type: none"> S Sorgenti naturali S Sorgenti acquedottistiche ■ Pozzi acquedottistici |
| <p>Pressione idrica esercitata sul territorio comunale dai prelievi di acqua per usi pubblici e privati (dati rilevati dalla provincia di Massa Carrara) Localizzazione dei pozzi privati, tipologia di utilizzo delle acque prelevate dalle falde acquifere</p> | |
| <p>Domestico ● pozzo attivo</p> | <p>Non definito ● pozzo attivo</p> |
| <p>Sistema di approvvigionamento e distribuzione delle acque pubbliche</p> <p>Approvvigionamento e trattamento</p> <ul style="list-style-type: none"> Ripartitore Impianto di pompaggio Deposito Serbatoio <p>Rete di distribuzione delle acque pubbliche nel Comune di Pontremoli</p> <ul style="list-style-type: none"> ●●●●● 17 - Arzengio ●●●●● 33 - Teglia | |

Annexe 11 – Photos of the estate

Photo 1 – Access road starting from via dei Cappuccini (Biagini, 2002)



Photo 2 – Access road (Biagini, 2002)



Photo 3 – Arable land turned into steady land (Marani, 2012)



Photo 4 – Arable land turned into steady land (Marani, 2012)



Photo 5 – Pastures turned into areas comparable to woodland (Marani, 2012)



Photo 6 – Pastures turned into woodland (Marani, 2012)



Photo 7 – Monumental chestnut (Marani, 2012)



Photo 8 – Farm buildings (Marani, 2012)



Photo 9 – Farm buildings (Marani, 2012)



Photo 10 – Farm buildings (Marani, 2012)



Photo 11 – Farm buildings (Marani, 2012)

