

## Incentives for agrobiodiversity within the European Union: the role of Rural Development Plans

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*Abstract:* The conservation of ecosystems and their services is fundamental for a sustainable economy and social development within the European Union. Incentives for the continuous on-farm use of biodiversity have become an integral part of EU support for regional and rural development in recent years. Furthermore, as a signatory of the International Treaty on Plant Genetic Resources for Food and Agriculture, the EU Commission set itself the objective of stemming the decline of agricultural biodiversity not only in Europe but internationally. At European level, the measures aimed at achieving these objectives pass through the Common Agricultural Policy and are contained within the Rural Development Plans. This article provides a general framework of the implementation of these policies for the 2007-13 plan with particular reference to the situation in Italy, and dwells the extent to which they correspond to the objectives of the Treaty.

*Keywords:* Rural Development Plan, measure 214, protection of genetic resources, incentives for biodiversity, agricultural policies

### Introduction

Biological diversity is one of the most important and weighty values and resources within the concept of sustainable development, a cornerstone implemented by the European Union in all policies. The EU was one of the main players in negotiations on the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), often bridging the gap between other OECD (Organisation for Economic Cooperation and Development) countries and developing nations. Furthermore, in signing the Treaty in March 2004, the EU

became a contractual party to it and has the same responsibilities as Member States for implementing it.

The main tool by which Member States implement their policies for agricultural development is the so-called Rural Development Plan (RDP)<sup>1</sup>, one of the two pillars on which the Common Agricultural Policy (CAP)<sup>2</sup> rests. RDPs are the tools by which the EU puts its policies into practice and seeks to orient the operators involved by means of economic incentives. It is crucial that the resources made available by Member States for safeguarding biodiversity be quantified and their specification known in order to assess the importance vested in biodiversity as compared to other policies.

RDPs provide two kinds of incentive for conservation of agrobiodiversity, namely direct and indirect. The former takes the shape of payments made to farmers for growing or raising a specific breed or variety at risk of genetic erosion. The latter are indemnities to encourage a farming approach that is more respectful of the environment and less intensive and which, generally speaking, makes use of agricultural biodiversity.

This paper analyses the resources allocated to this by every Member State with particular reference to the situation in Italy, and examines the extent to which they correspond to the Treaty.

## **The situation in Europe**

The European Union has given general priority to strengthening its rural development policies. The follow-up to the conclusions of the Salzburg Conference on Rural Development, (2003) and the strategic orientation of the Councils of Europe in Lisbon (2000) and Gothenburg (2001), highlighted the

<sup>1</sup> Rural Development Plans are the means by which Community policies for rural development are put into practice at local level. The tool of the RDP was introduced by Regulation CE 1257/99, and is a planning document drawn up by the Regional governments. The Plans are organised along axes of prioritised intervention; on finalisation they are sent to the Commission and promulgated by means of a Decision. Rural development is the development of rural areas defined by the OECD as having a population density not exceeding 150 inhabitants per km<sup>2</sup>.

<sup>2</sup> The Common Agricultural Policy (CAP) is one of the competences shared between the EU and its Member States. Set up by article 33 of the EU constituting treaty, its scope is to ensure European consumers reasonable prices, a fair remuneration to farmers, above all by a common organisation of agricultural markets and conformity with the principles

economic, environmental and social factors in the relationship between sustainable development and rural development policies. The 2007-13 plan is built around three main policy axes:

- 1 Improvement of competitiveness in agriculture and forestry;
- 2 Enhancement of the environment and of rural areas by supporting territorial management;
- 3 Improvement in the standard of living in rural areas and promotion of the diversification of rural economy.

In addition to these three policy axes - in short 'Competitiveness', 'Territorial management' and 'Standards of living and diversification', there is a fourth, the 'Leader' policy axis<sup>3</sup>.

The first axis includes all forms of aid at farm level for improving agricultural and agri-industrial production processes, which directly or indirectly affect farm productivity. Most of the measures provided for in this axis affect the 'productivity structures' overall, in the sense of their physical aspects (improvement in land and plant and machinery) as well as their human-related ones. Training is of great importance since it involves heightening awareness about the principles of quality, sustainability and multi-functionality.

The second axis comprehends all forms of aid at farm, inter-farm and territorial levels intended to improve the function and aspect of the rural environment and to encourage farmers to move towards principles of sustainability.

The third axis is about all the forms of aid which have been set up to strengthen a infrastructural fabric, social and productive, that can provide support to the economy of rural areas. Funding at farm and community levels will not only act directly to stimulate new forms of diversification in farming and new jobs, but should also foster associationism among rural subjects as a way of enhancing endogenous resources.

enshrined by the 1958 Conference of Stresa concerning uniformity of prices, financial solidarity and EU preference. At present, all Member States contribute a percentage of their GDP to the annual EU budget as part of the so-called own resources. Approximately half of this figures goes to finance the CAP.

<sup>3</sup> At least 5% of the RDP budget must be used to fund the rural economy by means of the Leader approach which means setting up Local Action Groups to promote local projects. The Leader approach is well suited to carrying out nature conservation projects especially in outlying districts where conservation can mean an opportunity for revitalising their economy and tourism.

The real innovation of this plan, however, is the new LEADER component, which will no longer be implemented by *ad hoc* programmes as it used to be but by means a specific axis within the plan. Note that this axis has characteristics of its own; it is defined as ‘methodological’, and its purpose is to contribute to the achievement of the three theme policy axes described above.

In turn, the policy axes are divided into sub-axes and specific measures thus creating upstream a structure common to all RDPs.

In general terms, this new plan seeks to move towards a more high-profile kind of rural development, despite direct funding of ‘support to agriculture’ still being relatively high. The first pillar, which looks to the market and to measures to support earnings, has been assigned some 290 billion euros, approximately 80% of total expenditure. The second pillar, rural development, by contrast only gets 20% of expenditure (some 70 billion euros). In any case, the progressive shift of CAP funding from supporting production, to measures in favour of rural development shows that the European Union is more sensitive to small, local situations and, in particular, shows its intention of developing a bottom-up approach for injecting new life into situations in decline. The new objectives in agricultural policies have a more attentive eye and a more decisive approach to the social and environmental roles of the primary activity within so-called ‘multi-functionality’<sup>4</sup>, but also to typical and quality produce. In this framework agricultural biodiversity can play a significant role.

By the time the new Rural Development Plans were presented in 2007 all European Member States had defined their policies and strategies for safeguarding plant and animal genetic resources. This article will focus on these measures and specifically on measure 214, the so-called ‘agri-environmental payments’<sup>5</sup>,

<sup>4</sup> The idea behind the expression ‘multifunctional agriculture’ is for the primary sector not be merely involved in agricultural food production but also provide a combination of services to the territory and society which fit in with the production of merchandise and which contribute to keeping rural areas alive.

<sup>5</sup> The agri-environment measures are voluntary, contractual commitments that farmers take on with government for at least 5 years to provide an ‘environmental’ service. These commitments involve give farmers sums of money based on costs borne and earnings lost in implementing the measures. Periodically, the Regions tender public bids to fund these measures which farmers can adhere to by presenting the required documentation. Bodies and subjects who manage funds (e.g. associations, public bodies, non-farming owners) can also benefit from agri-environment measures.

*Table 1 - Measure 214, pattern of initiatives*


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Integrated production;
Organic farming;
Environmentally friendly management;
Improvement of organic matter;
Conversion of grassland;
Cover crops;
Conservation of genetic resources;
Long term set aside;
Support for keeping animals of local endangered breeds;
Support for growing plants of local varieties;
Preservation of the landscape (and historical features on agricultural surfaces);

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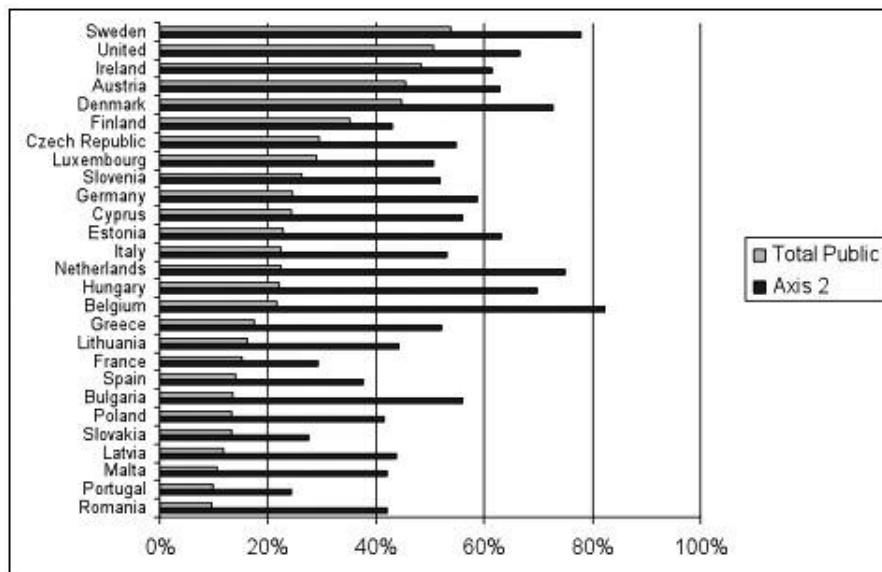
contained in policy axis 2. This measure contains a series of initiatives which can impact on agricultural biodiversity, see the following table.

Observing the financial apportionment for measure 214 compared to the total content of each RDP at European level<sup>6</sup> (see graph 1), it emerges that the countries that invested more in it are Sweden, United Kingdom, Ireland, Austria and Denmark, in percentages of their total budgets of between 40% and 55%. Italy invested only 22%. The bottom of the scale is mainly occupied by Europe's southernmost members with a scanty 10% (Malta and Portugal) and the recent newcomers to the European Union (e.g. Romania). The reasons for this gap, naturally, are many and are to be viewed considering the differences in farming methods in EU countries. That said, some states have manifestly invested more heavily in infrastructure (axis 1) whereas others, whose structural and infrastructural capital is greater, oriented their choice towards market reorganisation, placing more emphasis on quality production (such as, for example, organic crops) and on functions for reviewing the landscape and natural eco-systems, promoting sustainable local/territorial development and environment integration.

More in detail, not every Member State put the specific initiative for safeguarding the plant or animal biodiversity into practice. 24 countries out of a total of 27 added at least one of the initiatives to their RDP and 19 provided for

<sup>6</sup> According to a study by the IEEP (Institute for European Environmental Policy), almost 34.4 billion euros will be spent on agri-environment payments.

Graph 1 - Percentage outlay in measure 214 on the total of the three axes and on the total of axis 2 by nation



Source: data processed by this author based on the 'Rural Development Plans 2007-2013' of Member State documents obtained from the Italian Ministry of Agriculture, Food and Forestry

measures to support both plant variety and animal breeds. Only Romania, Czech Republic and the Netherlands did nothing in this sense (Table 2).

Only a descriptive analysis of the initiatives launched is possible for the time being, because the RDPs are still running and also because measure 214 contains more than one initiative which makes it impossible to get any specific financial information about any biodiversity protection initiative. All that can be ascertained are farmers' annual indemnities in the form of premium payments for genetic resource conservation initiatives.

When the period of the plan is concluded, it will be interesting to verify the actual *ex post* impact these initiatives had and each Member State's expenditure in safeguarding the genetic resources for plant varieties and animal breeds. This should enable direct aid to be evaluated as a tool for conserving and safeguarding agricultural biodiversity. Indeed, in evaluating the effectiveness of the agri-environment measures of the previous 1992-2006 plan when they had been first included in the CAP, the 2004 report on the implementation of the Biodiversity

*Table 2 - Measures in support of plant varieties and/or animal breeds*

COUNTRY	SPECIFIC MEASURES FOR THE CONSERVATION OF GENETIC BIODIVERSITY RESOURCES	MEASURES TO SUPPORT PLANT VARIETIES AND / OR ANIMAL BREEDS	
		Plant varieties	Animal breeds
Austria, Belgium, Estonia, Finland, France, Germany, Greece, Italy, Latvia, Luxembourg, Malta, Poland, Portugal, United Kingdom, Slovakia, Slovenia, Spain, Sweden, Hungary	Yes	Yes	Yes
Cyprus, Denmark	Yes	Yes	No
Bulgaria, Ireland, Lithuania	Yes	No	Yes
Netherlands, Rep. Czech, Romania	No	No	No
<b>EUROPE</b>	<b>24</b>	<b>21</b>	<b>22</b>

Source: data processed by this author based on the 'Rural Development Plans 2007-2013' of Member State documents obtained from the Italian Ministry of Agriculture, Food and Forestry.

Action Plan for Agriculture painted a picture that was not wholly satisfactory. 'Agricultural genetic resources protection of traditional animal breeds and crop varieties through agri-environment measures generally shows poor performance. Research resources should be put to investigate how these measures could be run more effectively' (European Union, 2004).

### The specificity of Italy

Responsibility for planning and running RDPs in Italy lies with the Regions while in other European countries it is national or hybrid – shared between State and Region (see table 3 for more detail).

For this reason, RDPs were presented by 21 local governments with responsibility for agricultural policies at local level. This decentralisation, which in certain cases extends to sub-regional level with the Provinces preparing the local Development Plans, has allowed each region, in theory at least, to tailor the RDPs to better fit their own territorial specificities. Decentralising agricultural policies plays a very important role in safeguarding agricultural biodiversity as we shall see. Furthermore, an analysis of this expenditure is highly significant because responsibility for implementing the Treaty in Italy lies with the Regions.

*Table 3 - Responsibility for rural development*


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<b>Exclusively national</b>
Denmark, Luxembourg, Sweden
<b>Prevalently national</b>
Austria, France, Ireland, Netherlands
<b>Hybrid, but prevalently national</b>
Finland, Greece, Portugal
<b>Hybrid but prevalently regional</b>
Belgium, United Kingdom, Spain
<b>Regional</b>
Germany, Italy

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Consequently, if their investment in the RDP is different, the extent to which they achieve the objectives of the Treaty will be (see Bertacchini 2009). RDPs can therefore be seen as additional financial tools provided by the CAP to facilitate implementation of the Treaty.

The overall resources that the Regions have freed up for the whole 2007-13 period amount to 16,726 million euros which come from the European Fund for Regional Development (EFRD) and national and regional co-funding. Graph 2 compares the difference in the amounts allocated in the Regions for each single axis expressed as percentages. As has already been noted for the European Union, here, too, those from the north, with better organised agriculture, invested more in axis 2 (Italian average 42%), while the Regions of Italy where agriculture is more marginal but rich in agri-biodiversity order to use their resources for axis 1.

In general, the Regions of Italy activated a limited number of measures - only 12 from a possible 41.

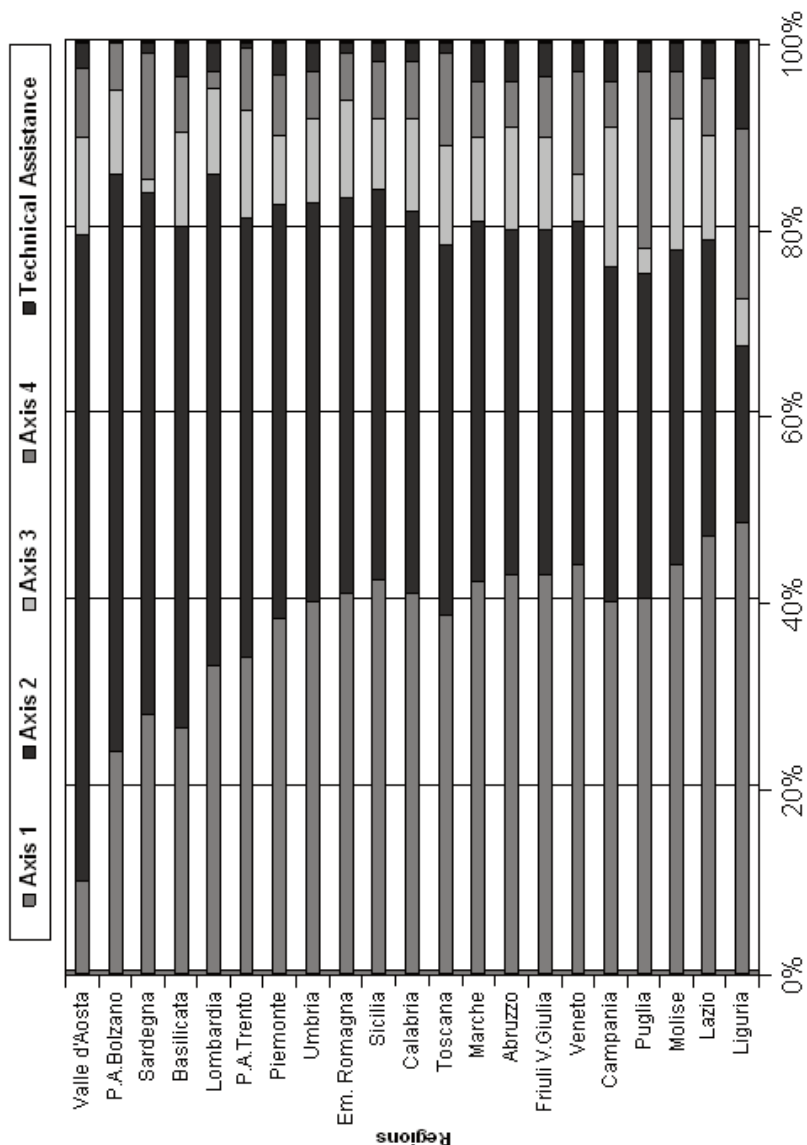
An analysis of the expenditure of Axis 2, shows that in most Regions (11 out of 16), the resources are concentrated in measure 214 on the total public expenditure. Expenditure allocated to agri-environment issues range from 32% of the Autonomous Province of Bolzano to 7% in Liguria (Graph 3). Note that most of these resources were incentives to organic farming and so can be considered as an indirect incentive to conserving agricultural biodiversity.

More in detail, aid earmarked for safeguarding agrobiodiversity contemplate two specific aspects:

- 1 Raising breeds of animals of local importance at risk of abandonment or extinction;



Graph 2 - Overall public expenditure per axis



Source: data processed by this author based on the 'Rural Development Plans 2007-2013' of the Regions

Table 4- The number of agri-environmental measures in Italy (Source: Fugaro, 2008)

	% Axis 2 of the total RDP	% Measure 214 of axis 2	% Measure 214 of the total RDP
PUBLIC EXPENDITURE	42	52	22

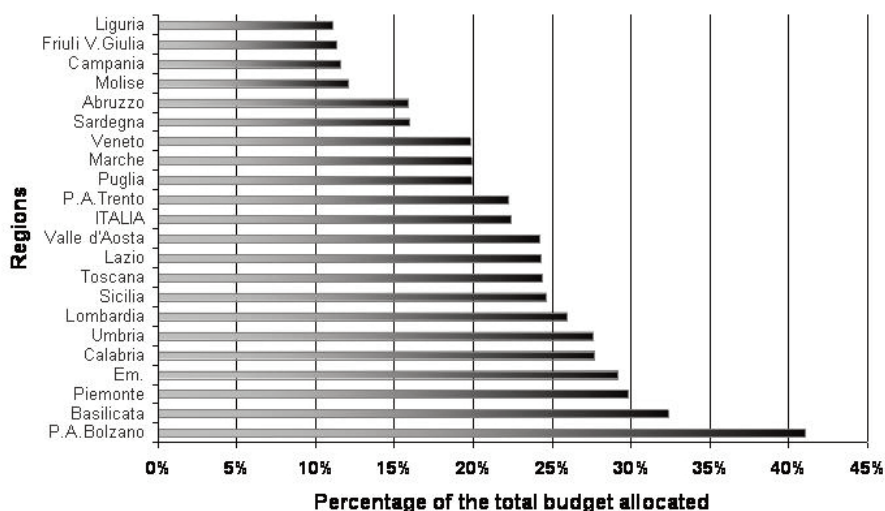
## 2 Cultivation and multiplication of local autochthonous varieties at risk of genetic erosion.

As can also be seen from table 4, 19 Regions/Autonomous Provinces (excluding Abruzzo and Molise) embarked on at least one of the two initiatives which reflects the degree of interest shown by the single regions for these forms of support. No fewer than 17 Regions tendered bids for raising breeds of autochthonous livestock while only 13 included specific initiatives for growing plant genetic resources. Only 11 Regions contemplated initiatives for both.

Aid was given to the following subjects:

- Individual or associated breeders and farmers who commit themselves to *in situ* raising the pure bred animals for which aid is given, or maintain, or increase the consistency of the local breeds registered. The amount of aid ranges from a minimum of 80 to a maximum of 500 €/LU (Livestock Unit)<sup>7</sup>, depending on species and breed.
- Individual or associated farmers who commit themselves for a period of not less than 5 years to grow, conserve, reproduce or increase the consistency of plant genetic resources (specified in the RDP or for varieties listed in the appropriate registers, or in voluntary regional registers) which are at risk of genetic erosion in the area of origin.
- Public research bodies and botanic gardens for the upkeep, management and update of regional Repertoires (for the regions who possess them). Initiatives can include managing, putting into practice and monitoring the regional germ-plasma bank and the list of custodian farmers; providing training, technical assistance and teaching services, supervising the conservation and security network and verification of its state of functionality; carrying out local conservation and enhancement projects and

<sup>7</sup> Livestock Unit (LU): Bulls, cows and other bovines older than 2 years (1 LU), adult bovine aged between 6 months and 2 years (0.6 LU), sheep (0.15 LU), goats (0.15 LU).

*Graph 3 - Overall regional expenditure for measure 214 on the total public expenditure*

Source: MiPAAF data processed by this author based on the 'Rural Development Plans 2007-2013'.

re-introduction of varieties of local origin back into the territory; teaching, divulgation and training initiatives on the web. Here, too, the amount of aid is 100% of expenditure.

Obviously, the variety or breed eligible for aid must be listed in the regional registers. This is where the work by the regions, which have specific laws for protecting autochthonous genetic resources, encounters the Regional Development Plans. The regional repertoires, prepared pursuant to regional laws, are the lists of the varieties and breeds on which there is the right to a premium (see Bertacchini, 2009). The result is perfect harmony between a tool for regional planning and a European Union financial one. Should these repertoires be unavailable, the regions resort to what public research centres have produced on the issue concerned. All RDPs contain a list of the species for animal resources which may apply for premiums. 17 breeds of horse, 26 of bovines, 42 of sheep, 27 of goats, 6 pig and 6 asinine (Fugaro, 2008). It is more complicated to develop a combined scenario of plant genetic resources because of the great many varieties listed in the regional registers.

Note that certain regions (Basilicata, Emilia Romagna, Liguria, Puglia, Umbria, and Veneto) have broadened the ambit of simple direct aid for conserving

agricultural biodiversity by including 'supplemented territorial plans' among projects for funding. Emilia Romagna was the first region to begin moving in this direction seeking a higher profile in the dynamics of rural development, a strengthening of the identity of rural territories, an enhancement of their endogenous resources, and the creation of a more direct link between public bodies and the subject who attends to resource conservation. More in detail, these plans provide for specific initiatives for *in-situ* and *ex-situ* conservation, typifying, collecting and making use of autochthonous genetic resources of interest to agriculture, but also, and especially, agreed-on supplementary initiatives from promoting the culture of rural communities to providing information and divulgation about everything related to agrobiodiversity. Those carrying it out can also be organisations of civil society. The aim of the projects is to encourage formal and informal institutions to become involved in conserving biodiversity so that the conditions will arise for the heritage to become a real resource. This can take place, for example, by creating new markets or revitalising local circuits, setting up local cooperative ventures or other forms of associationism as a support for local producers, training teachers and farmers 'combining' local breeds and varieties into forms of sustainable agriculture such as organic farming using the factor of quality as a tool for enhancing local crops.

Furthermore, some regions appointed two specific figures to benefit from initiatives, namely the steward farmer (Sicily, Veneto) and breeder (Veneto). These are farmers and breeders who carry out farming within the regional territory and act as custodians of bio-diversity by using and conserving local genetic resources.

Not to be forgotten is the Leader axis, by virtue, also, of the positive reaction forthcoming from the previous plans 2000-2006. The purpose of the Leader was to strengthen the links between agricultural policies and social and economic interests through a process of local governance, and by encouraging synergies between divergent areas and a network of relationships able to promote new opportunities for farmers, the public, local craftsmen and the territory. The results have contributed directly, but especially indirectly, to developing initiatives for safeguarding animal and plant biodiversity. Indeed, by enhancing typical local produce through involvement of the whole community, there has been an overall, integrated improvement of local resources which included the plant and/or animal biological diversity being protected and enhanced. In Italy, the Leader project has been widely used to ascertain local varieties and breeds still being kept up by farmers. The surveys were carried out by local authorities in close cooperation with public research centres. These proved essential for mapping the agricultural diversity in the field. Just how important the Leader axis is in

*Table 5 - Measures in support of plant varieties and/or animal breeds*

Regions	Specify measures to conservation of resources for genetic preservation biodiversity	Measures to support plant varieties and / or races animal	
		Plant varieties	Races animals
Abruzzo	No	No	No
Basilicata	Yes	Yes	No
Calabria	Yes	No	Yes
Campania	Yes	Yes	Yes
Em. Romagna	Yes	Yes	Yes
Friuli V. Giulia	Yes	Yes	Yes
Lazio	Yes	Yes	Yes
Liguria	Yes	No	Yes
Lombardia	Yes	No	Yes
Marche	Yes	Yes	Yes
Molise	No	No	No
Piemonte	Yes	No	Yes
P.A. Bolzano	Yes	No	Yes
P.A. Trento	Yes	Yes	Yes
Puglia	Yes	Yes	No
Sardegna	Yes	Yes	Yes
Sicilia	Yes	Yes	Yes
Toscana	Yes	Yes	Yes
Umbria	Yes	Yes	Yes
Valle d'Aosta	Yes	No	Yes
Veneto	Yes	Yes	Yes
Total	19	13	17

Source: data processed by this author based on the MiPAAF data: 'Rural Development Plans 2007-2013' of the Regions [www.politicheagricole.it](http://www.politicheagricole.it)

revitalising rural areas can be seen in the case of the Cerere project in the Gran Sasso and Monti della Laga national park in the Abruzzo region. Despite the RDP not providing specific initiatives in measure 214 for the protection of agricultural biodiversity, the Cerere project which was also funded by Leader, enabled a local survey to be carried out and a network of steward farmers to be set up together with the accompanying incentives (Agro Biodiversità, 2008).

On examining the 2007-13 plan implemented by the Regions, the first thought that comes to mind is that local governments are more interested in incentives of this kind. Agri-environment payments under regulation 2078 of 1992 including specific measures for those wishing to cultivate ancient plant varieties or breeds of animal only began in 1997 and only in 4 Regions, namely Friuli, Tuscany, the

Province of Bolzano and Umbria. In actual fact, Tuscany had the lion's share with 127 applications and 500 thousand euros expenditure and was the Region in Italy that invested most in conserving autochthonous genetic resources. Even Spelt from Garfagnana and the Zolfino bean which were initially included in regional lists because of their risk of extinction were subsequently removed because the danger no longer exists. It must be said, however, that the merit of this success did not lie in the CAP alone or in the direct aid but was also due to the rebirth of a niche market for them (Marino, 2001). The fact that today almost every Region tenders bids for aid for activities of this kind shows a renewal of interest and points to the role that these resource can play in rural development.

The effectiveness of these measures is also striking. As stated above and confirmed by several analyses on the ground, the instances of direct aid being a real driving force in conserving agricultural genetic resources were when they were part of a broader context that included many local actors. This is borne out by the study conducted by Prof. Riccardo Fortina<sup>8</sup> of the Department of Animal Husbandry of the University of Turin on the 'Mora Romagnola' (a breed of pig from Romagna) and the 'Sempione' (a goat from Piedmont), genetically autochthonous breeds which were in danger of extinction, and which were both saved through initiatives funded by the Emilia Romagna and Piedmont Regions respectively (within the support measures provided for by the RDPs). While the 'Mora Romagnola' population has grown from the 10 heads in 1997 to today's 600 thanks to a joint effort on the part of institutions (Region, university, research centre), breeders, transformers and agritourism, the outcome of the Sempione goat project has been less successful. The population of 30 has not changed over the last 25 years and the main causes include a lack of synergy between the institutions and breeders, the latter being unaware of or not knowing how to apply the proper means of safeguarding the breed. Especially, though, differently from the Mora Romagnola, there lacked a focused aim of safeguarding the breed which in addition to conserving the germplasm saw this breed playing an economic or environmental part present or future or having an historic or cultural worth.

<sup>8</sup> Thanks to Dr. F. Perri of the Development service of the agriculture and food system of the Department of Agriculture of the Emilia Romagna Region and also to Prof. R. Fortina of the Department of Animal Husbandry of the University of Turin - RARE, Association of Autochthonous Breeds at Risk of Extinction for giving useful comments and information.

## Measure 214 in relation to Article 6 of the Treaty

The CAP and RDPs in particular are the most important tools by which the European Union pursues the objectives within agriculture's new role in society. The sustainable use of genetic resources is one of the new priorities as stated also in the European Action Plan for Agricultural Biodiversity. At regional level, this plan is a fundamental starting point for implementing the Treaty at Community level. The recent Intermediate Evaluation of Implementation of the Community Action Plan on Biodiversity is explicit; in the chapter on biodiversity in the countryside it suggests making other funding available for rural development for safeguarding biodiversity by shifting resources from the first to the second pillar of the CAP (European Commission, 2008).

In point of fact, measure 214 of the RDP is perfectly in line with Article 6 (2) (a) of the Treaty where the measures favouring the sustainable use of genetic resources include proper agricultural policies that promote the development and maintenance of diversified farming systems. Contributions to encourage conversion to integrated agriculture, and even more to organic agriculture are also clearly moving in this direction. Note that this clause of the Treaty goes well beyond the conservation of single genetic resources but views the agricultural system from a holistic, eco-systemic approach that also includes natural diversity. This, then, places the other initiatives provided by measure 214 into their proper perspective; despite no longer being specifically in support of an agricultural model that makes more use of agricultural biodiversity, they still promote land use by grass cover, conversion of arable land to grassland and environmental improvement and landscape conservation.

The initiatives of measure 214 specifically for protecting local varieties and breeds at risk of genetic erosion appear as another of the measures indicated in Article 6. Here, the relevant clauses are (2) (e) on promoting the use of local varieties and varieties adapted to local conditions and (2) (f) on the on farm management and conservation of genetic resources. Indeed, the Italian system shows how the list of varieties and breeds accepted for contributions within RDPs include a series of local genetic resources which are the result of localised adaptation to different surroundings and cultures. Providing incentives for the conservation of these varieties is the primary objectives that Regions have set themselves.

This link between specific measures of the RDPs and the Treaty is confirmed by the work of research and enhancement begun by the Regions, which is also funded by the same measures. Indeed, in a wider perspective, in pursuing the

objective of sustainability in agrobiodiversity, the Treaty recognises the importance of the contractual parties activating programmes of conservation, research, development and enhancement. That every Region in Italy has envisaged funding for these initiatives for research centres and botanical gardens, or that some have included 'integrated territorial projects' in their initiatives to be financed is a clear sign of the role that rural development policies can play in implementing the Treaty, and become increasingly important territorial as opposed to sectorial tools.

## Conclusions

These last ten years have seen a heightened awareness both in Europe and in Italy of rural development issues. Within this process the farmer has taken on a new role in society, not merely a producer of food products but also of services, and especially of the conservation and sustainable use of biodiversity.

In many cases, however, agrobiodiversity is still seen as a side issue of agricultural and production policies in which agriculture should firstly be brought up to date and then some thought be turned to environmental issues. This interpretation of direct forms of aid for conservation carries the risk of the effectiveness being closely linked to the duration of the incentive received. To achieve the desired results, by contrast, the *aid = conservation of biodiversity* equation needs to be included in well-defined local strategies and policies which take other factors into consideration.

It is assuredly not easy to identify the best means for safeguarding and enhancing biodiversity, but identifying it as a resource is assuredly a major step at institutional level (Cannata and Marino, 2000). Local varieties and breeds should be seen as a resource for farmers to make direct use of (Cleveland, 1994), providing incentives for their cultivation and use more than for conservation and linking their produce to the territory. This in turn highlights the relationship between local culture and local varieties and breeds synthesised in traditional foodstuffs rediscovered and enhanced.

As we have pointed out, in a country like Italy, enhancement of biodiversity underpins many rural development policies in which agricultural production maintains its link with the territory and its culture of origin, giving them worth (Negri and Veronesi, 2000).

It is to be hoped that there will be increased integration among the various European agricultural policies in order to respond to the objective ambitions contained in the Treaty.



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