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# ANALYSIS OF THE CONSEQUENCES OF THE EUROPEAN UNION CRITERIA ON SLOPE GRADIENT FOR THE DELIMITATION OF "AREAS FACING NATURAL CONSTRAINTS" WITH AGRICULTURAL TERRACES

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## *ABSTRACT*

*The paper highlights the important environmental, productive, social and cultural functions of agricultural terraced landscapes with a view to seeking special protection under the CAP for these areas, regardless their slope, size and so forth. We present the methodological difficulties facing policy-makers if slope is considered the only biophysical criterion applied to terraced landscapes.*

**Keywords:** Agricultural Terraces, Areas Facing Natural Constraints, Common Agricultural Policy, Less-Favoured Areas, Mountain Agriculture, Rural Development Policy

# ANALISI DELLE CONSEGUENZE DEI CRITERI DELL'UNIONE EUROPEA RIGUARDANTI LA PENDENZA PER DELIMITARE LE "ZONE SOGGETE A VINCOLI NATURALI SIGNIFICATIVI" IN TERRAZZAMENTI AGRICOLI

## *SINTESI*

*Il documento evidenzia le importanti funzioni ambientali, produttive, sociali e culturali dei paesaggi terrazzati agricoli, indipendentemente dalla loro inclinazione, dimensioni, eccetera, e sostiene l'importanza della PAC per poter preservare queste aree. Si espongono infine le difficoltà metodologiche che i responsabili politici affronterebbero se la pendenza fosse considerata l'unico criterio bio-fisico applicato ai paesaggi terrazzati.*

**Parole chiave:** Terrazze Agricole, Zone Soggette a Vincoli Naturali Significativi, Politica Agricola Comune, Zone Svantaggiate, Agricoltura di Montagna, Politica di Sviluppo Rurale

## INTRODUCTION

Terraces have been built throughout history to expand agricultural land, to deepen soils, to prevent soil erosion and to retain water, among other purposes (Kemp et al., 2006; Ashkenazi et al., 2012; Haiman, 2012; Stanchi et al., 2012; Contessa, V., 2014; Jiang et al., 2014; recent historical studies in Spain: Torró, 2010; Trillo, 2010; Kirchner, 2011; Puy, Balbo, 2013; Boixadera et al., 2014; Fernández-Mier et al., 2014; Ferro-Vázquez et al., 2014; Quirós Castillo et al., 2014 numerous references therein; Retamero, 2015).

Terracing is the most widely used technique to provide agricultural land on hilly and steep slopes. Mountain areas cover 28.7% of the European Union (EU) territory, sheltering 16.9% of its population (ESPON 2013: III). Until 2014, the EU's Common Agricultural Policy (CAP) included terraced landscapes in the so-called *Less Favoured Areas* (LFAs). In the EU-27, 54.4% of its agricultural area was classified under this category (EC, 2013: 164); this area will certainly increase when we have the disaggregated data from Croatia, the last country to join the EU. In Croatia, 24.6% of its land is classified as agricultural use, including LFAs (MAFWM, 2007, 3, 12).

As a whole, 16.2% of the *Utilised Agricultural Area* (UAA) of the EU-27 fell within *Less-Favoured Mountainous Areas*. Besides these mountain' farmlands, *LFAs Other than mountains* were also distinguished. These included two categories: *Areas of Natural Constraints* (whose UAA reached 34.4% of the European agricultural area) and *Areas Affected by Specific Handicaps* (accounting for 3.8% of the UAA of the EU-27). Therefore, the three aforementioned categories accounted for 54.4% of the UAA in the EU-27, and all of them were considered as LFAs (EC, 2013a, 164-166).

LFAs aid beneficiaries had a significantly lower average income per Annual Work Unit compared with those with farms outside LFAs, specifically 31% less for *LFAs-Mountains* and 25% less for *LFAs Other than mountains* (EC, 2008:1). For example, if the average income per family work unit stood at around € 12,600 in 2011, this amount fell below € 10,000 in the mountainous regions of Northern Portugal and in the Italian region of Abruzzo (EC, 2014: 2). This also occurs in other European countries (Germany, p.e., Rudow, 2014). The percentage of labour devoted to farming in mountain regions is close to 14%, mainly in the South of Europe (Monfort, 2009), quite high compared to the average percentage devoted to agriculture in the EU-27, which is about 5% (EC, 2013b). The European Parliament defines most mountain farms as family-run with a "high financial risk" (European Parliament, 2010: 50), and LFA and agro-environmental payments represented on average 27% of the mountain farms' income (EC, 2009, 28).

However, the term LFAs, which has been used for years (EC, 1997), has now been completely removed from the new Regulation EU-No 1305/2013 on Support for Rural Development. In this Regulation, these territories are called *Areas Facing Natural and Other Specific Constraints* and their characteristics are defined in Article 32 (European Parliament and the Council, 2013). From 2014 onwards, as a result of the CAP reform guidelines, these territories have to face changes in their management. The changes include where Member States may allocate greater aid to *Areas Facing Natural and Other Specific Constraints* and to develop thematic sub-programmes for mountain areas (a revision in Asins, Romero, 2014).

On the other hand (and more importantly for terraced landscapes), a new delimitation of *Areas of Natural Constraints* based on eight biophysical criteria will be published, and come into force from 2018 (Böttcher et al., 2009; Eliasson et al., 2010; European Parliament and the Council, 2013: Annex III). The Commission of the European Community's reason for removing socio-economic objectives from the main aims of the Natural Handicap Payments (objectives included in previous years) was because it considered that there are more targeted measures for supporting farmers' income and competitiveness. Such measures are mainly promoted by rural development and cohesion policies (CEC, 2009).

In the preliminary literature, the Commission stated that an area could be considered affected by significant natural handicaps if a large part of its utilised agricultural land (at least 66%) meets at least one of the criteria listed above in Table 1 (CEC, 2009). However, for the purposes of this study, we focus on questioning the threshold of one of the biophysical criteria, namely that covering steep slopes. This criterion specifically affects agricultural terraced landscapes, especially in Mediterranean EU lands. In these countries, the following criteria could not be considered: *Low Temperature*; *Dryness* (met in only a very few specific locations in the southern mountains); *Climate and Soil*. With respect to the *Soil* criterion, farmers, have long used terraces to improve the *Limited Soil Drainage; the Unfavourable Texture and Stoniness; the Shallow Rooting Depth and the Poor Chemical Properties* of hillside fields. Thus, from 2018 onwards, *Steep Slope* will be the only criterion for designating a terraced agricultural landscape as an *Area Facing Natural Constraints*. Does the criterion "Change of elevation with respect to planimetric distance ≥15%" correspond to reality in the field? Would this threshold figure exclude many agricultural terraces that play an important role in farming, the environment (among other aspects), but that are very costly to maintain?

## CRITERION: CHANGE OF ELEVATION WITH RESPECT TO PLANIMETRIC DISTANCE ≥ 15 %

Farmers have used different techniques to build terraces on steep slopes: dry stones, vegetative barriers, and so on. However, one thing they all have in com-

***Table 1: Biophysical criteria for the delimitation of* Areas Facing Natural Constraints *(Source: European Parliament and the Council, 2013: Appendix III)***

| CRITERION | DEFINITION | THRESHOLD |
|---|---|---|
| **CLIMATE** | | |
| Low Temperature (*) | Length of growing period (number of days) defined by number of days with daily average temperature > 5 °C or | ≤ 180 days |
| | Thermal-time sum (degree-days) for Growing Period defined by accumulated daily average temperature > 5 °C | ≤ 1 500 degree-days |
| Dryness | Ratio of the annual precipitation (P) to the annual potential evapotranspiration (PET) | P/PET ≤ 0.5 |
| **CLIMATE AND SOIL** | | |
| Excess Soil Moisture | Number of days at or above field capacity | ≥ 230 days |
| **SOIL** | | |
| Limited Soil Drainage (*) | Areas which are water logged for significant duration of the year | Wet within 80 cm from the surface for over 6 months, or wet within 40 cm for over 11 months or Poorly or very poorly drained soil or Gleyic colour pattern within 40 cm from the surface |
| Unfavourable Texture and Stoniness (*) | Relative abundance of clay, silt, sand, organic matter (weight %) and coarse material (volumetric %) fractions | ≥ 15 % of topsoil volume is coarse material, including rock outcrop, boulder or |
| | | Texture class in half or more (cumulatively) of the 100 cm soil surface is sand, loamy sand defined as: Silt % + (2 × clay %) ≤ 30 % or |
| | | Topsoil texture class is heavy clay (≥ 60 % clay) or |
| | | Organic soil (organic matter ≥ 30 %) of at least 40 cm or |
| | | Topsoil contains 30 % or more clay, and there are vertic properties within 100 cm of the soil surface |
| Shallow Rooting Depth | Depth (cm) from soil surface to coherent hard rock or hard pan | ≤ 30 cm |
| Poor Chemical Properties (*) | Presence of salts, exchangeable sodium, excessive acidity | Salinity: ≥ 4 deci-Siemens per meter (dS/m) in topsoil or |
| | | Sodicity: ≥ 6 Exchangeable Sodium Percentage (ESP) in half or more (cumulatively) of the 100 cm soil surface layer or |
| | | Soil Acidity: pH ≤ 5 (in water) in topsoil |
| **TERRAIN** | | |
| Steep Slope | Change of elevation with respect to planimetric distance (%) | ≥ 15 % |

(*) Member States need only check fulfillment of this criterion against those of the thresholds that are relevant to the specific situation of an area

mon is that they are very labour-intensive, both to build and to maintain. Their cost-benefits analyses have been studied in different countries (Winter-Nelson, Amegbeto, 1998; Posthumus, de Graaff, 2005; Tenge et al., 2005; Kizos et al., 2010; Bizoza, de Graaf, 2012; Kumar, Chand, 2014). A recent study has estimated that the costs for reconstructing ancient dry stone terraces, in the Veneto region (Italy), varies between 130 and 189 €/m$^2$, depending on the wall height (1.50-2.50 m), carrier access, etc. (Lodatti, 2012, 121-122). This estimate could be lower in Spain but more expensive in other countries, for example in France, where the estimated average hourly/salary is higher than in Italy (EUROSTAT, 2015).

Some EU working documents on CAP reform raised the possibility of excluding areas for subsidies where farming has overcome natural handicaps; specially those where:

> *"Thanks to technical progress and human intervention, farmers have in several cases managed to overcome natural handicaps and are able to carry out profitable agriculture in areas where the natural conditions were at the origin quite unfavourable. (sic) In such cases, the intrinsic natural characteristics of the area remain unchanged, so on the pure basis of the biophysical criteria the area would be designated as severely constrained for agriculture. However, the handicap does not impact on agricultural productivity and there is no justification for classifying the area as affected by natural handicaps. The simulations made on the basis of these criteria should therefore systematically exclude: […] c) areas for which soil problems (soil texture, stoniness, rooting depth and chemical properties) are clearly overcome and where relevant production related indicators (average cereal yield or livestock density or standard gross margin per hectare) are comparable to the national average (excluding, where appropriate, mountain areas)" (CEC, 2009, 7).*

The document stated that the excluding such areas for subsidies would not affect mountain areas "where appropriate". Yet in hilly Mediterranean areas, farmers' use of terracing techniques (human intervention) mean that sizeable tracts are not currently affected by the biophysical criteria outlined in Table 1. Applying these criteria, only terraced fields on steep (≥15 %) slopes could be designated *Areas Facing Natural Constraints*. When the EU comprised 15 countries, the length of linear features (for example, stone walls), was estimated at 1,717,454 km (EC, 2005, 192; recent disaggregated data for Italy in Agnoletti et al., 2015). How many of those kilometers are on slopes ≥15%?

We have to remember that terrace agriculture, apart from boosting farming yields, has also made impressive social, cultural and environmental contributions (Harfouche, 2007; Varotto, 2008 and 2014; Lasanta et al., 2010; Hernández, Morales, 2012; Giménez-Font, 2013; Murtas, 2013; Asins, Romero, 2015; FAO, 2015; Monger et al., 2015; Arévalo et al., 2016). However, although this technique is resilient (Solé-Benet et al., 2010), it is also vulnerable to physical and chemical degradation (Romero-Martín et al., 1994; Chen et al., 2007; Goodman-Elgar, 2008; Martínez-Casasnovas, Ramos, 2009; Calvo-Cases et al., 2011; García-Ruíz, Lana-Renault, 2011; Romero-Díaz et al., 2011; Gispert et al., 2013; Schönbrodt-Stitt et al., 2013; Lasanta, 2014; Tarolli et al., 2014; Arnáez et al., 2015; Ažman, Kladnik, 2015; Romero-Díaz, 2016) and very expensive to maintain and to repair, both (i) in labour and money terms, if farmers opt for to restore the dry stone structures, or (ii) in labour, if they use natural or autogenic succession' repair processes, which requires periodic maintenance and long-term planning (LaFevor, 2014).

CAP 2014-2020 allows Member States to allocate aid for *Areas Facing Natural Constraints* according to their needs; so the consultation of regional and local authorities on the criteria for identifying the aid-recipient regions is essential. In this sense, in order to provide scientific information to stakeholders at local and regional level, urgent consideration needs to be given to the steep slope criterion (*Change of elevation with respect to planimetric distance ≥15 %*) and its practicality in the field. One also needs to ascertain whether policymakers at the local and regional levels could easily obtain the information required. Even though the case study we present is the Valencian Community (Spain), the results are applicable to other Mediterranean agricultural terraced landscapes.

## DATA SOURCES AND METHODS

In order to estimate the area potentially affected by the 15% slope threshold, two Digital Elevation Models (DEM) of 5 and 25 meters in resolution were used. Both come from the same data source (LiDAR flight realised in 2009) and are provided by the Instituto Geográfico Nacional (IGN, 2016). The 25 m (DEM) underestimates the total area at and over the 15% gradient threshold by 3% so all the work has been done using the 5 m resolution DEM. According to DEM, the area ≥15% in slope makes up 50.7 % of the Valencian Community territory. In order to obtain the agricultural area on steep slopes ≥15%, the resulting slope map has been crossed with the land use map (*Sistema de Información sobre Ocupación del Suelo de España - SIOSE*) dating from 2011. Before it, the SIOSE map (originally as vector polygons) was rasterised to the same resolution as the DEM and specially adjusted using ArcGIS v10.2. The map in Figure 1 shows in raster format of 5 m resolution, the areas cultivated in 2011 divided in two categories: ≥15% (in dark) and <15% (in light grey). Three zooms in this map (Figures 2, 8 and 9) are made on selected areas overlapping 2012 images, in order to give a better image of the problems in considering such a slope threshold.

## DISCUSSION

The SIOSE land use map drawn up through photointerpretation estimates of the proportion of cultivated area in each polygon, as well as the proportion of the area with agricultural terraces. Figure 1 shows the spatial distribution of the cultivated areas (with some proportion of crops) over and under the slope threshold. Table 2 summarises the results taking these proportions into consideration in the SIOSE mapping. This Table shows

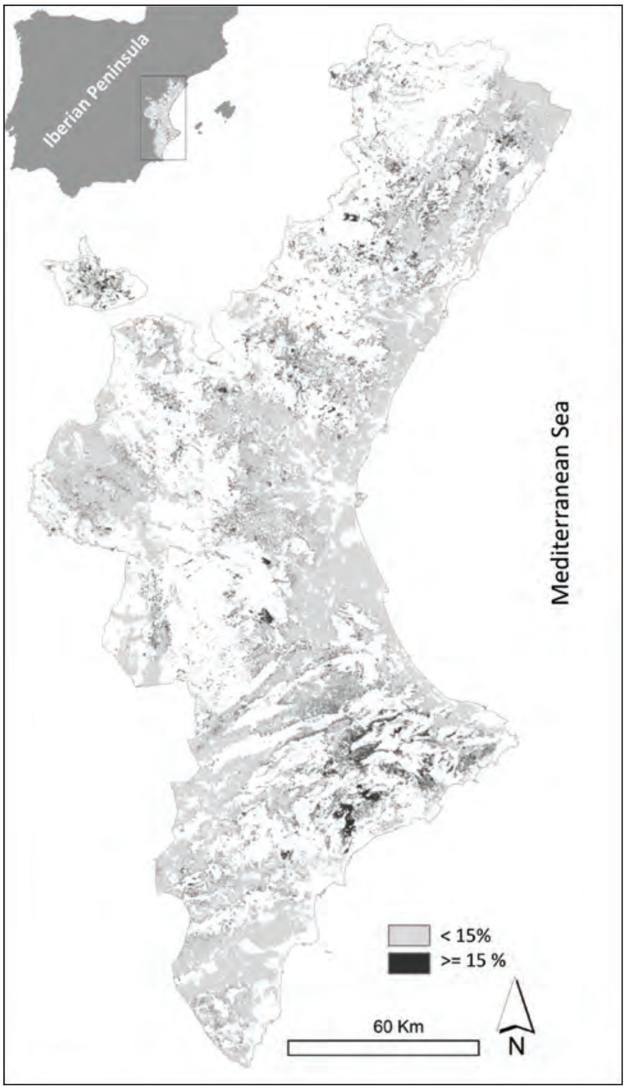


***Figure 1: Spatial distribution of the cultivated areas (with some proportion of crops) over and under the 15% proposed slope threshold for designating* Areas Facing Natural Constraints *(Source: SIOSE, 2011 and 5m in resolution Digital Elevation Model, provided by the Instituto Geográfico Nacional de España).***

that only 16.02% of the cultivated area is on slopes over the threshold proposed by the *Biophysical criteria for the delimitation of Areas Facing Natural Constraints*.

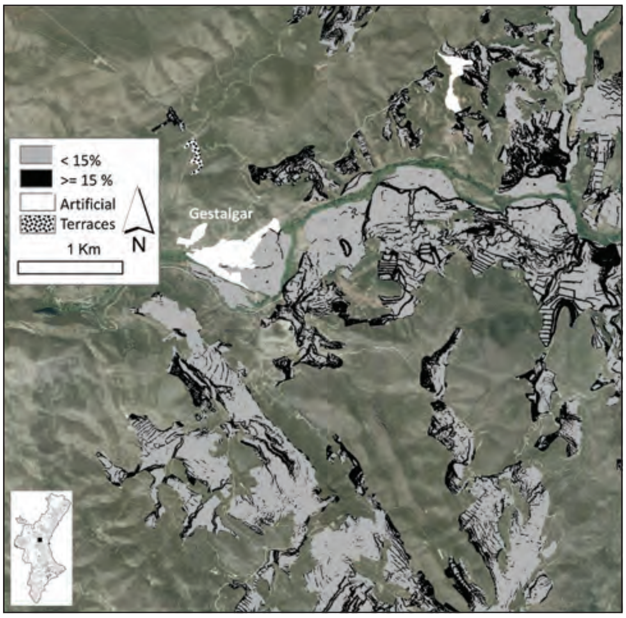


***Figure 2: Cultivated area in the surroundings of Gestalgar village over and under 15% slope threshold and location of agricultural terraces (the small patch at the NW of the map), however this technique is distributed through all the agricultural area visible by the presence of lines over the 15% threshold inside the <15% slope patches.***

Thus applying the ≥15% slope criterion, policymakers could designate only 16.02% of the total farming area in the Valencian Community as agricultural *Areas Facing Natural Constraints*. Yet in this mountainous Community, most agricultural fields are arranged in terraces. In the Valencian Community, there is legislative protection for agricultural areas. It is possible to declare a *Protected Agricultural Rural Area* if this exhibits one or more of the following: agricultural values; a rural setting of special social, cultural and/or landscape value; agricultural importance (GV, 2014: Annex IV). The question is, what would be appropriate if historic terraced landscapes were declared protected and subsidised with lines of aid facilitating their maintenance?

However, even if the Valencian Community's policymakers chose to include all the terraced areas as eligible for aid, the information provided by SIOSE will

***Table 2: Surface and proportion of the cultivated areas under and over the ≥ 15% Slope threshold obtained from the map in Figure 1.***

| **CULTIVATED AREA** | **SURFACE** (ha) | **SURFACE** (%) |
|---|---|---|
| Of total Valencian Community | 684 659.48 | 29.42 |
| On slope < 15 % | 574 945.75 | 83.98 |
| On slope ≥15 % | 109 713.73 | 16.02 |

***Table 3: Inaccurate information provided by SIOSE, 2011 with respect to terraced areas in the Valencian Community.***

| **CULTIVATED AREA** | **AGRICULTURAL TERRACES** (%) |
|---|---|
| Of total Valencian Community | 2.42 |
| On slope <15 % | 5.08 |
| On slope ≥15 % | 24.74 |

prove useless for this purpose. Figure 2 illustrates the poor mapping of the agricultural terraces on the SIOSE. In an area where all farming is on terraces (lines of black pixels show slopes of over 15%) only a small patch has been mapped as terraces at the NW corner of Figure 2. According to the SIOSE map, only 2.42% of the agricultural areas of the Valencian Community is affected by terraces (Table 3) but this is inexact. It should be checked because most of the agricultural areas in this area (past and present) are on flat land obtained by terracing. The SIOSE shortcomings is identifying terraces as especially noticeable on slopes <15%. Nowadays, more accurate methods can be used to identify agricultural terraces (Galleti et al., 2013; Díaz-Varela et al., 2014; Sofia et al., 2014; Sofia et al., 2016) however their application will need specialised technicians working in public administration. Furthermore, the SIOSE was compiled in 2011 and will need continuous up-dates.

## AREAS FACING NATURAL CONSTRAINTS SHOULD INCLUDE ALL TERRACED LANDSCAPES

The first problem that policymakers have to solve is whether the 15% slope (that is to say *Change of elevation with respect to planimetric distance ≥15%*) reflects realities in the field and serves to define Areas Facing

***Figure 3: Small terraced properties (under 2 or 3 hectares) not included in the Areas Facing Natural Constraints. Sella (Alicante). Photo: P. Giménez-Font.***

Natural Constraints. There is enough research in favour of protecting terraced landscapes to justify not only the inclusion of areas with slopes ≥15% but also conservation of terracing techniques in general. Hence the need to conserve agricultural fields on terraces (whether they fall above or below the 15% threshold). Our reasons for making this recommendation include the following:

*1) Terraced areas with a slope ≥ 15%*

Considering the biophysical criteria, these areas should receive this aid but in practice, many farms could be excluded. The reason is that, in addition to the biophysical criteria, farms tend to be small (Figure 3). This implies that they may not reach the two or three hectares required by the legislation, depending on the country. Thus, although such smallholdings might fulfil the *Steep slope* criterion, they would fail the *Size* test and so be ineligible for aid. This means most farmers would end up having to foot the cost of protecting the landscape and the wealth of flora and fauna fostered by traditional farming practices. Here, one should note that good farming practices can help conserve flora and fauna (roughly 50% of European species depend on agricultural habitats, EEA, 2006). Other ecosystem services have been recognised for years, such as carbon sequestration, maintaining soil fertility, regulating of the dynamics of insect pollination and so forth (Barrios, 2007; Goldman et al., 2007; Dale, Polasky, 2007; Swinton et al., 2007; Zhang et al., 2007; Downing et al., 2008). Scientists have also highlighted the importance of agricultural terraces as ecological corridors (Hargrove et al., 2004; Grashof-Bokdam, Langevelde, 2005; Donald, Evans, 2006; Kindlmann, Burel, 2008; García-Llorente et al., 2015; Iniesta-Arandia et al., 2015).

*2) Historical orchards (slopes <15 %)*

These historic orchards are found on slopes <15% but play a key roles in social (labour), productive (nearby market), ecological (vegetation associated with crop fields) and cultural (heritage preservation) terms. Considering the biophysical criteria, these agricultural terraces will not be eligible for aid (Figure 4). Today, approaches on cohabitation and hybridisation of agricultural production models are being defended. That is because they help conserve family agriculture to ensure the continuity of rural areas (recent studies will be published as a result of the colloquium *La renaissance rurale d'un siècle à l'autre?*, *Journées Rurales 2016 and 25*

***Figure 4: Historic terraced orchards. Chelva (Valencia). Foto: F. Jarque.***

***Figure 5: Agricultural terraced "island" spared by a forest fire. Dos Aguas (Valencia), July 2012 (Photo: J. García--Pausas).***

*ans de dynamiques rurales*, held in Toulouse, France, in May 2016).

*3) Agricultural "islands" inside forests (slopes <15 %)*

The way terraced fields slow down the spread of forest fires has been well studied (Lourenço, Nave, 2007; Galtie et al., 2007). However, this important function is not included in the elegibility requirements for aid in *Areas Facing Natural Constraints*. In the Valencian Community, there are municipalities that are ringed by mountains and where terraced fields slow down advancing wildfires. Among these municipalities, we highlight those in the Sierra de Espadán Natural Park (Castellón). In that area, small villages such as Aín and Alcudia de Veo are ringed by abandoned fields that are overgrown with brush. This greatly increases the risk of forest fires reaching houses and endangering lives. Furthermore, some of the farmed areas next to the villages are under the slope threshold (≥ 15%) and a policy of conserving traditional agricultural practices near settlements and along roads will help defend towns and villages against fires (Figures 5-7).

*4) Peri-urban agriculture in terraces as buffer zones (slopes <15%)*

In Figure 8, the area surrounding the towns of Petrer and Elda (Alicante) shows a landscape dominated by rocky outcrops. Here, most of the cultivated areas are under the threshold <15% but all fields are terraced. The aridity of the area makes wildfires less common. Here, conserving agricultural areas next to the town should be seen as a way of keeping traditions and nearby markets in a dense industrial area (Figure 8). These lands epitomise the "territorial agriculture" (González Regidor, 2000, 2003; Esparcia, Escribano, 2012), with small family farms sited in areas with physical constraints and/or of special economic/environmental value. These fields have to be protected from urban and industrial sprawl (Reig et al., 2016).

*5) Historical agricultural terraces (slopes ≤ 15%)*

In addition to the reasons already cited, one should not forget that Mediterranean terraced areas below <15% slope represent a secular heritage that should be protected, based on the same arguments already given for "territorial agriculture" (Figures 9-10).

## CONCLUSIONS

Over the last half-century, nearly 30 million hectares of farming land has been abandoned in the European Union (Pointereau et al., 2008, 27). The new economic post-productive context and deep social and cultural changes encourage the development of new policies in

***Figure 6: Aín (Castellón), located inside a Natural Park, and surrounded by forest. To preserve the agricultural terraced areas with a slope <15% could help in the event of forest fires.***

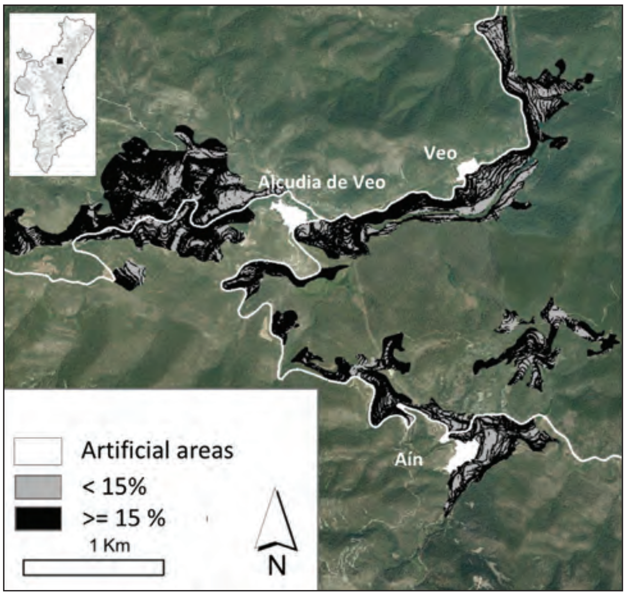


***Figure 7: In areas like some villages inside the Natural Park of Sierra de Espadán (Castellón) all ancient agricultural terraces near the villages need to be protected to preserve the population from forest fires. Terraces create spatial discontinuity with hillslope parts over and under 15 % threshold.***

relation to European rural areas. It is forecast agricultural abandonment could affect 3-4% of the EU land area in the period up to 2030. This loss will be most marked in the Pyrenees, the Massif Central, the Apennines, the Alps, the Harz, Elbe Sandstone Mountains [Elbsandsteingebirge], the Thuringian Forest in Germany, and the Erzgebirge, in the Bohemian Forest (spanning the border between Germany and the Czech Republic) and to a lesser extent in the Carpathians (Keenleyside, Tucker 2010, 62, 76; IEEP and Alterra 2010: 6-7). In the EU-27 (data from Croatia are not available yet) 54.4% of the UAA is considered as a disadvantaged area. That means that the criteria for defining the new category of *Areas Facing Natural Constraints* must include the wide range of the previous categories of *Less Favoured Areas* and reflect the situation on the ground in each EU Member State.

In addition to their territorial and environmental dimensions, European rural landscapes are also (and sometimes above all) culture, history, collective memory, identity and legacy. These are the reasons why public policies boosting territorial and landscape functions are slowly gaining ground. Terraced agriculture should be included as a landscape category in the *Areas Facing*

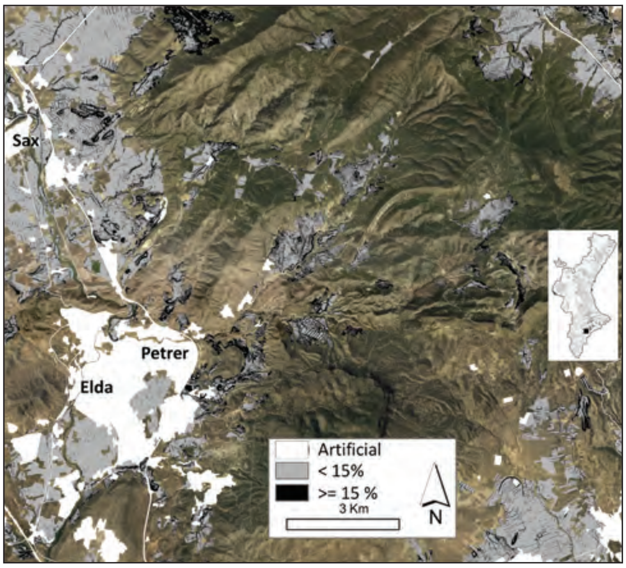


***Figure 8: Agricultural terraced fields surrounding a dense industrial and populated Area in a mountainous area (Elda-Petrer, Alicante).***

***Figure 9: Culla (Castellón).***

***Figure 10: Villafranca (Castellón).***

*Natural Constraints*. Taking into account the productive, environmental, social and cultural functions of terraced landscapes, a special set of measures terraced fields should be drawn up as part of the EU's Common Agricultural Policy. This would not only benefit farmers who work more than two or three hectares on slopes ≥15%, but all those who farm hillside fields using this technique of soil and water conservation, regardless of the steepness of the slope or field size.

Such a conservation policy should go hand in hand with the concept of territorial agriculture. This is because rural development is more a territorial issue than a sectoral one. Development must be encouraged, organised, and based on an appropriate territorial level in terms of culture, identity and networks. Such a trend is in keeping with territorial multifunctionality, and growing public demand for an end to unsustainable agricultural practices and for EU policies that foster cultural values, territorial identity, and the landscape. This is why instruments need to be drawn up for protecting, managing, and planning of all landscapes.

To achieve the protection of all historical terraced landscapes, Member States should present an exhaustive catalogue of such lands with a view to improving landscape policies in mountain areas. The EU could then draw up a master plan, including local participative management and link this to local landscape planning.

# ANALIZA POSLEDIC MERIL EVROPSKE UNIJE O NAKLONU ZA RAZMEJEVANJE »OBMOČIJ Z NARAVNIMI OMEJITVAMI« Z OBDELOVALNIMI TERASAMI

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*POVZETEK*

*V številnih hribovitih sredozemskih občinah so vsa kmetijska zemljišča na pobočnih terasah. Od leta 2018 se bodo v skladu s smernicami skupne kmetijske politike (CAP) Evropske unije »območja z naravnimi omejitvami« (prej »območja z omejenimi možnostmi«) razmejevala na podlagi osmih biofizikalnih meril. Ta merila so precej omejujoča, zlasti za sredozemska terasirana območja, saj morajo kmetovalci poleg izpolnjevanja merila naklona ≥15 % imeti najmanj 2 ali 3 hektare, kar je odvisno od posamezne države. V članku so predstavljene produktivne, okoljske, socialne in kulturne funkcije teh terasiranih pokrajin ter priporočilo, da bi morala skupna kmetijska politika ohranjati in podpirati tradicionalno terasasto obdelovanje zemlje ne glede na naklon terena ali velikost njiv. Te funkcije so tako pomembne, da bi bilo treba njihovi zaščiti nameniti posebno podporo. Članek poudarja tudi metodološke težave, na katere lahko naletijo oblikovalci politik pri določanju zgornje meje naklona 15 %, saj bo morda treba dodelati aktualne zemljevide.*

**Ključne besede:** obdelovalne terase, območja z naravnimi omejitvami, skupna kmetijska politika, območja z omejenimi možnostmi, hribovsko kmetijstvo, politika za razvoj podeželja

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