



Munich Personal RePEc Archive

Consumption of farmland between traditional interpretative paradigms and new spatial models

De Pin, Antonio

Department of Economics - Ca' Foscari University of Venice

28 September 2016

Online at <https://mpra.ub.uni-muenchen.de/82727/>

MPRA Paper No. 82727, posted 21 Nov 2017 06:45 UTC

Consumption of farmland between traditional interpretative paradigms and new spatial models

Abstract

In this paper, we will discuss how soil consumption in mature economies is increasingly affecting farmland with measurable effects on the loss of eco-systemic services of agriculture. Different sets of indicators interconnect multiple phenomena: this fact restates the centrality of rural areas through the concept of multifunctionality.

Modifications are intense, which imply the damage of multiple relationships between artificial space and agricultural systems.

The observed trends suggest a concentration model of farm structures. This allows the testing of the effectiveness of agricultural policies. The tendency of relevant indicators shows the intensification of the restructuring process.

Keywords

Farmland consumption, multifunctionality, spatial models

JEL Codes

Q10 Q12 Q15

1. Consumption of farmland in new spatial models

The use of agricultural land through several forms of degradation: erosion, compaction, and waterproofing affects all primary sectors with increasing costs.

The Italian landscape is 30 million hectares, 17 of it is the total farmland (SAT), but only 12 are actually productive. The utilized agricultural area (SAU), in the past 30 years has decreased by 20% and its incidence has contracted from 52.4%, to 42.6% [Arzeni, 2012]. The majority of the loss is due to urban expansion and soil consumption. An appropriate indicator of damage includes private roads, irrigation systems, uncultivated lands and uncontrolled events affecting the rural area (SAT). On the other hand, the utilized farmland (SAU) is more suited to a planning that is guided by qualitative dimensions that considers the specific agricultural acreage and its productivity. Its decrease is due to several factors: in addition to the loss of SAT, it is also related to the reforms of the Common Agricultural Policy, to the many agricultural subsidies and to the dynamics of international trade. The abandonment of farming is

the result. Often, the outcome is wild re-naturalization inside many forms of urban development. This factor contributes only partially to the return of lost biodiversity, serving several forms of degradation and disorder, while natural forces regain land control.

Soil consumption is increasingly affecting the farmland, with measurable effects in the loss of many ecosystem services of agriculture: the ability to absorb carbon, biodiversity and the restoration of natural capital.

Different sets of indicators interconnect multiple phenomena, this fact restates the centrality of rural areas through the concept of multi-functionality [Casini, 2009]. Modifications are intense, which imply the damage of multiple relationships between artificial space and agricultural systems. In the last decade, approximately 1,500,000 hectares of farmland (SAT) and 300,000 hectares of good land (SAU) were pulverized, rising progressively, to 55 ha per day [ISTAT, 2013]. The damage diversifies regions, for morphological peculiarities, but especially for the variability of the economic development rate. The North shows the most rapid trend. In the Veneto and Lombardy, the proportion between soils consumed and regional surface in the decade exceeds 10% [ISPRA, 2015]. On the other hand, the internal dynamics connects us to the mode of Community economic development, where the situation is also very widespread. If residential buildings represent 30% of the loss, infrastructures constitute more than 40%, the remainder is attributable to different methods of urbanization (excavation, compaction, construction sites, areas for exhibitions, car parks, etc.).

What is attributable to a disorderly land planning translates into urban expansion: the proliferation of roads, interconnecting infrastructures and widespread urbanization. Increasing costs materialize the phenomenon of deterioration. Human impact results in emergent negative externalities [Movia, 2015]. Oversized, articulated, inhabited towns produce cumulative diseconomies, rising costs of land, housing, and transportation prices. Flight to the suburbs is the basis of the repolarization process. The additional impact on the area generates spatial dynamics, dilating land consumption [Chang, 2011]. The uncontrolled growth of cities affects the outlying regions, and failing planning results in a degradation that feeds upon itself. Thus, "urban sprawl" explodes, with low population density, high land consumption and widespread urbanity [EEA, 2006]. This leads to devastation with territorial metastasis, with the gradual marginalization of farmland, the loss of the original biological characteristics and the segregation of the natural elements. Also, the concept of "empty landscape" arises for rural territory. The extinction of indigenous species, due to

pesticides, cultivation methods, and hunting brings us back to a scenery deprived of its characteristic elements, a clear demonstration of biological decline [Ripple, 2015]. The housing dispersion expands the artificial surface: construction of new roads, bridges, links, and refueling systems. Paradoxically, the rate of consumption of the ground becomes inversely proportional to the increase in population. Small municipalities elevate the level of per capita consumption.

Waterproofing becomes relatively independent of demographic growth, related to the stage of economic development, the marginal rate of consumption rises for new residents. The diffused conurbation appears to be the natural evolution of human processes. A strong component of "moral hazard" of the local policies guides the logic of building and the real estate speculation of municipalities. Specific interests and the common good are often difficult to merge. The relevance of the income generated by the taxes from building plots is directly related to the justification of the increase in building spaces. The situation is even more intense in the weakest and mountain areas, where the most fertile land and the valley floor will all soon be urbanized. It only due to the economic crisis that thus far, real environmental and landscape damage has been prevented. We can cite the whole unsustainability of winter sports facilities, for significant effects on the environment.

In Veneto, human impact is intensified by regional peculiarities. Historically, the territory is dotted with small to mid sized towns, characterized by a high degree of autonomy. The fulfillment of housing needs is associated with the rejection of moving house. We must note rural origins where a strong sense of private property and of the small community prevail [Soriani, 2015]. The new structure spatial model "agropolitian" confuses high urbanization characteristics with pre-existing rural structures, at the risk of breaking up the environmental, landscaping, socio-cultural distinctive features of the traditional Veneto. Formed by local cultivation methods anchored to morphological prerogatives, indigenous vegetation peculiarities, pre-existing structures, and tree-lined and inter-property roads, this is the unavoidable heritage anchored in the history of Veneto [Scarpa, 1963]. This provides a pertinent identity to distinguish and diversify the Veneto Region, which includes its landscape and local culture with habits, customs and traditions. It is characterized by its particular use of the land, the combination of natural and modified characters is evident in the specificity of the vegetation and fauna and in the housing and socioeconomic patterns. The traditional Veneto agricultural landscape is now threatened by the phenomenon of abandoning marginal and mountain areas. Examples

are the modifications in production systems with the elimination of its essential features in the intensive areas of the plain, and by the gradual process of subtraction by extra-agricultural activities [Scarpelli, 1996]. In such a manner, the grassland surrounded by hedges, the riparian small woods and wetlands, gradually disappear for the application of agricultural techniques with high mechanization and the consolidation of cultivated areas. The contraction of trees and hedges and the general demise of aesthetic elements are functional to productivity. In the plains, the objective of maximizing production results in the simplification of landscape elements. In the hills and mountains, a more inertial evolution connotes the consequences of the abandonment [De Pin, 2006].

The breakdown of the regional identity profile declares the progressive cultural detachment from the places of origin and the loss of the value of their preservation. New lifestyles indulge standardization and social homogenization; shopping centers and major connector roads are part of active life. New spatial patterns overwhelm the environment and social relations [Bernardi, 1990]. They deprive value from the landscape, even the ones that can be used for tourism development.

2. Agricultural structures concentration in the relocation processes

The restructuring process of agricultural economy in the Veneto is one of the most intense, the fastest and the most out of control in many ways in a future increasingly full of uncertainties.

The productive reorganization seems to follow the Ricardian model. It is increasingly concentrated on the plains; the particular land regime contrasts the competitive repositioning of farms, whose drop-out rates have gradually accelerated, also aggravating the difficulties of turnover, revealing the weaknesses of the social component.

As in other mature economies, the most destabilizing factor is the progressive consumption of agricultural land: it emphasizes the irreversibility of the loss. Territorial aggression becomes more intense, contributing to an erroneous concept of development. A strong defense of rural heritage seems progressively closer to surrendering. The most pronounced decline in farms, almost halved in number from '90s, most dramatically in mountain areas, reveals a selective restructuring. The failure

of those remaining to adapt does show that they have not yet reached a satisfactory structural equilibrium.

The significant contraction of meadows and pastures, but also of woods, encourages the intensification as a favorite kind of land use, when more and more pressing economic commitments require the specialization of farms. The non-agricultural destinations of the land are now predominant. The decreased importance of agriculture in the management of resources makes its function of environmental protection more conflictual and is gradually restricted to unprofitable spaces.

Obstacles to the development of farms are partially circumvented through alternative methods of land consolidation, such as leases and rent-free agreements. In this context, in the personal budgeting of the farmer, the aids to agriculture contrast with other elements, until the preference for land use changes, with a view to urban rent.

A further question is whether such an evolutionary model of the supply, whose dynamics look to speed up further, is compatible with the requests of an increasingly demanding market.

References

Arzeni A., Pecci F., *L'agricoltura che cambia: il sesto censimento tra passato e futuro*, *Agriregioneuropa* n. 20, 2012.

Boschetti Marco, Lo Surdo Giorgio, *Guida illustrata alla multifunzionalità dell'azienda agricola* n.10/2005, Verona, Edizioni L'Informatore Agrario spa, 2005.

Casini Leonardo, *Guida per la valorizzazione della multifunzionalità dell'agricoltura. Per i cittadini, le imprese, le pubbliche amministrazioni*, Firenze, Firenze University Press, 2009.

Commissione Europea, *Orientamenti in materia di buone pratiche per limitare, mitigare e compensare l'impermeabilizzazione del suolo*, Bruxelles, 2012.

Commissione Europea, *Superfici impermeabili, costi nascosti. Alla ricerca di alternative all'occupazione e all'impermeabilizzazione dei suoli*, Bruxelles, 2013.

Corbella Silvano, *L'impresa agricola, Caratteri distintivi, profili di rischio e dinamiche aggregative*, Milano, Franco Angeli, 2000.

De Filippis F., Romano D., *Crisi economica e agricoltura*, *Quaderni del Gruppo* 2013, Edizioni Tellus, Roma, 2010.

Defrancesco E. et al., Le caratteristiche strutturali ed evolutive: un'analisi comparativa tra gli ultimi censimenti dell'agricoltura (1970-2000), Veneto Agricoltura, Pubblicazioni scientifiche, 2003.

Dematteis G., Lanza G., Nano F., Vanolo A., Geografia dell'economia mondiale, Torino, Utet, 2010.

De Pin Antonio, L'attuazione delle misure paesaggistiche nella politica di sviluppo rurale del Veneto, in ESTIMO E TERRITORIO, vol. 4, 2006.

De Pin Antonio, Modalità applicative delle misure paesaggistiche nelle comunità montane del Veneto, Venezia, Dipartimento di Statistica, Un. Cà Foscari Venezia, vol. 5, Rapporto di ricerca, 2005.

De Pin Antonio, Economia e Politica Agraria Comparata, Padova, IMPRIMITUR, 2008.

De Pin Antonio, Mercati dei terreni e mutamenti nell'uso del suolo in ambienti della collina veneta, in VICENZA ECONOMICA, vol. 4, 1995.

EEA, Urban Sprawl in Europe, the ignored challenge, Office for Official Publications of the European Communities, Brussels, 2006.

Fanfani R., Il processo di ammodernamento delle aziende agricole italiane (1990-2005), AgriRegioniEuropa, n. 12, 2008.

Frascarelli Angelo, Mariano Eleonora, Il consumo di suolo agricolo in Italia: una valutazione delle politiche, Agriregionieuropa, anno 9 n°33, 2013.

Gardi C., Dall'Olio N., Salata S., L'insostenibile consumo di suolo, Edicom Edizioni, Legambiente, 2013.

Greco M., Di Cristofaro E., Il settore agricolo attraverso i dati provvisori del 6° Censimento generale dell'agricoltura, AgriRegioniEuropa, Anno 7, n. 26, 2011.

Henke Roberto, Verso il riconoscimento di una agricoltura multifunzionale. Teorie, politiche, strumenti, Napoli, Edizioni Scientifiche Italiane, 2004.

Hoffmann Alessandro, La nuova politica di sviluppo rurale, Milano, Franco Angeli, 2006.

ISPRA, Il consumo di suolo in Italia, Roma, TMB stampa, 2015.

ISTAT, 6° Censimento dell'agricoltura 2010, Roma, 2013.

Lorenz Konrad, Sull'aggressività. Sulla storia naturale di aggressione, Dr. G. Borotha-Schoelerpark Verlag, Vienna, 1963.

Marino Davide, Cavallo Aurora, Agricoltura e città: attori, geografie e prospettive, AgriRegioniEuropa, anno 12, n°44, Mar 2016.

Malthus Thomas Robert, Saggio sul principio di popolazione, nel suo rapporto col progresso della società, J. Johnson, London, 1798.

Osservatorio per l'Imprenditorialità Giovanile in Agricoltura, Rapporto insediamento e permanenza dei giovani in agricoltura, Collegio nazionale degli agrotecnici e degli agrotecnici laureati, OIGA, 2009.

Pasolini Pier Paolo, Scritti corsari, Garzanti, Milano, 1975.

Perrone Camilla, Zetti Iacopo, Il valore della terra, Teoria e applicazioni per il dimensionamento della pianificazione territoriale, Franco Angeli, Milano, 2010.

Pilieri Paolo, La questione «consumo di suolo», in AA VV, Osservatorio Nazionale sui Consumi di Suolo. Primo rapporto 2009, Maggioli Editore, Rimini, 2009.

Povellato A., Crescita dell'impresa, mobilità fondiaria e prezzo della terra, AgriRegioniEuropa, Anno 5, n. 18, 2005.

Povellato A., L'evoluzione delle strutture agricole, Regione Veneto, Agricoltura e foreste, Schede informative, 2012.

Ripple, W.J., et al. (2015), Collapse of the world's largest herbivores, Science Advances, 01 May 2015, Vol. 1, n. 4.

Sabbatini Massimo, Pressione socio-economica e strategie emergenti delle aziende agricole, FrancoAngeli, Milano, 2011.

Sallustio L., Marchetti M., Lasserre B., Pazzagli R., Spazio rurale e urbanizzazione: analisi di un cambiamento. Scienze del Territorio 2/2014, Firenze University Press, 2014.

Scarpa Giorgio, L'agricoltura del Veneto nella prima metà del 19° secolo: l'utilizzazione del suolo, Torino, ILTE, 1963.

Scarpa Giorgio, Strade e agricoltura nel veneto della restaurazione, in Atti e memorie della Accademia di agricoltura scienze e lettere di Verona, AA 1987-88, serie VI, 1988.

Scarpelli Lidia, Veneto Geografia dei sistemi agricoli italiani, REDA, 1996.

Soriani Stefano, Camuffo Monica, Politica e gestione dell'ambiente. Attori, processi, esperienze, Bologna, Pàtron Editore, 2015.

Sotte Franco, Arzeni Andrea, Agricoltura urbana e periurbana nel Censimento agricolo del 2010, AgriRegioniEuropa, anno 12, n° 44, Mar 2016.

Trestini S., Il ricambio generazionale, Regione Veneto, Agricoltura e foreste, Schede informative, 2012.

Trevisan Giovanna, Estensione e tipi di utilizzazione della proprietà fondiaria comunale nel Veneto in RICERCHE ECONOMICHE, vol. 4, 1973.

Trevisan Giovanna, Una indagine su alcune relazioni tra ruralità e aspetti economico-sociali-demografici nei comprensori del Veneto in *AGRICOLTURA DELLE VENEZIE*, vol. 10, 1976.

Trevisan Giovanna, Proprietà collettive e programmazione territoriale negli ambienti di monte in *RIVISTA DI ECONOMIA AGRARIA*, vol. 3, 1991.

Trigila A., Iadanza C., Bussetini M., Lastoria B., Barbano A., Dissesto idrogeologico in Italia: pericolosità e indicatori di rischio, ISPRA, 2015.