

The relationship between Food - Agriculture - Environment compared with the new Common Agricultural Policy

Abstract

Food - Agriculture - Environment are mutually connected with an organic, unbreakable, complex bond. Their balance depends not only on pedologic and climate factors or the degree of agricultural techniques development but above all on food processing and commercial policies carried out by National Governments and International Bodies. In order to protect availability, accessibility and quality of food processing products is necessary the contribute of political legislation. In the recent years, many times it has been established considerable paradoxes: surplus in farming production and growing prices; inadequate productivity and imports of farming products from Countries with very advantageous agronomic potentialities; abandonment of cultivable lands situated on hill and mountain areas and land grabbing in the poorest Countries; expansion of no food crops in the same regions where people are starving. In the nineties, whether capitalistic agriculture in western Countries or the collectivism one in Socialist Countries and in Developing Countries affirmed the "rediscovery of territory and genius loci". The new Common Agricultural Policy ("CAP") will have to consider that in order to feed humankind will be necessary to dress Earth through a more respectful use of resources and natural environment and closer use to the traditional food crops of local communities. In this way, rural landscape, which tells stories of thousand-years old efforts and successes, becomes the paradigm more suitable to represent them and to protect quality of farming products and food.

Keywords: Food, Agriculture, Environment, Common Agricultural Policy, Rural landscape.

The definition of new Common Agricultural Policy (CAP)

First of all I want you justify the topic of our scientific session *Common Agricultural Policy role and value in a changing world Food-Agriculture-Environment as key factors in order to get through the current global economic crisis*; this intricate choice was done not only to comply with the title of this current Eugeo Conference *Europe, what's next? Changing geographies and geographies of change, but also for replying to the continuous inputs that come from the discussion around a new CAP for the 2014-2020 period*. Moreover, there are also programmatic works, already set up, revolving around the celebration of Expo 2015 *Feeding the planet, Energy for life (Nutrire il pianeta, energia per la vita)*. This event will present the agro-food issues of whole planet (world) trying to propose sustainable models and solutions.

Thirdly, the reason that has steered our interest around the role of CAP in a changing world: is the primacy in the regulatory action about the relation Food-Agriculture-Environment that Europe has gained compared to the other Countries all over the world. In the last fifty years CAP paid attention to the territorial issues setting up

structural reforms already since seventies and integrated development programs of rural areas (PIM, LEADERS, AGENDA 2000). Moreover, even Member States accept and ratify "European Convention of Landscape" meant as relationship between culture and nature and they have even pushed for emanation of European directive in order to protect high quality food processing products through the of labels such as (P.D.O., P.G.I., TSGs, ORGANIC).

The relationship Food-Agriculture-Environment could represent one of the possible key to overpass current economic global crisis. By the way, I would like to underline that our proposal about the topic, presented to the EUGEO Committee more than one year ago, has been assumed also by political and governmental representatives on July 7th 2013 at the Royal Palace in Monza that is the headquarters of EXPO 2015. All influential panelists (Napolitano; Barroso; Letta) they have argued that Expo 2015 could represent a great occasion to overtake the current phase of economic and "innovative" stagnancy, that hits not only Italy but the whole Europe.

In first part of my relation, I will stress how Italy and Europe are ahead about landscape-environ-



ment and agro-food issues so that it's possible to export the normative models all over the world. Secondly, I will analyze some paradox about current topics such as the new CAP and last but not least I will provide some reflection to better understand how our discipline take place in this discussion and interpretation of the relationship Food-Agriculture-Environment.

The primacy of Italy and Europe in the protection of agriculture and high quality food products

The first half century of CAP will be mentioned slow and with contradiction. CAP was meant as a process to convert territory to values. Thus, territory is considered as relation between environmental resources, cultivation techniques, food tradition/local specificities. The improving of territory and genius loci occurs at a later stage (Structural Funds, PIM, Leader 1, Leader 2, Leader 3, LEADER+, Agenda 2000, Fischler) through the enhancing of the so called second pillar of the CAP and the paradoxical *set-aside* reform. This second pillar fostered competitiveness, boosting productivity and the unitary yield per hectare of cultivated lands. Only in nineties, with an extraordinary convergence of interests shared by agricultural policies of both capitalist and socialist countries, new functions are assigned to the rural areas. This new orientation goes beyond the satisfaction of basic needs (food, clothes) and with the second and third sector (processing industry, marketing, agritourism) concerns also the ethical aspect (preservation of cultural and environmental resources) and the aesthetic content (rural landscape) of human action.

The evolution over the time of CAP, testify, in an emblematic way, the variety of the several socioeconomic interests revolving around the primary sector¹. From a model of agriculture sector exploitation addressed to the growing productivity (based on quantity and profitability of outputs), CAP changed in a model of functional and qualitative development model. This new approach put Agriculture in linkage with other economic sectors (handicraft, tourism, trade and service industry) and aspects of social sphere (values, tradition, ethics, aesthetics).

Europe and Italy have normative primacy on issues related to Agriculture but very often characterized by paradox and contradictions. Those put in danger the evolution gained even through mistakes of evaluation and support to primary sector (support price policies and set-aside incentives).

New CAP, still under discussion, will have take in account that "to feed humankind" it's necessary to dress the globe in a more respectful way to use natural resources and environment and in the respect of traditional food culture of local communities. Rural landscape that, all over the world, tells stories of millennial labour and success, becomes the paradigm more suitable to interpret them and to protect quality of rural products and food through labels. Europe is well-advanced also in emanation of legislation about landscape safeguard.

European Landscape Convention was adopted in 2000 (in Florence) and it is open for signature by EU Member State. It promotes the protection, management and planning of European landscapes. It contains a range of measures aimed at promoting landscape protection, management and planning, underpinned by principles of sustainable development in terms of keeping potential and economic capabilities for future generation, attracting touristic flows, enhancing commercial flows of high quality production².

At the beginning of the new millennium, the research of the balanced relation between Food-Agriculture-Environment is facing the recovery of cultivation and food know-how, that are the result of millennial accumulation of experiences.

The last agricultural revolution invites humankind to limit his intervention on agricultural and to select the kinds of consumption and the food.

In the last years too competitive and industrialized agriculture, has stressed the necessity, in the both capitalist and socialist countries, to reinstate a safer and more balanced relation with environment to protect biodiversity and quality of agro-food products. Although the two different ideological contexts (capitalist agriculture and socialist one), and opposite problems overproduction, agro-food market saturation in western countries, shortage of basic food in less developed Countries and in socialist Countries such as Cuba), there has been an extraordinary convergence of interests which stimulated the research of rural production in the respect of environment, natural resources and closer to the local demand of food.

As CAP was concentrated on the enhancing of rural development, also FAO, in the last ten years, discovered a different approach in agricultural in terms of recovery of traditional not competitive practices. It started the project *Globally Important Intergovernmental Agriculture Heritage Systems (GIAHS)*, for the census and development of rural local systems. It promotes the study and the use of sustainable techniques of land utilization in order to export



them in other Countries with similar natural and cultural characteristics. Moreover, Fao signed the proposal to achieve a "Catalogue of rural, historical landscapes that are in risk of extinction", This proposal has been put in the *Final Declaration of the International Colloquium* in 2005 by research group GECOAGRI-LANDITALY, committed by UGI *Sustainability of rural systems*³. In 2014, there will be the celebration the *international year of familiar agriculture*.

CAP thanks to valorization of the concept of territory and *genius loci* moved up a process on a worldwide scale. Europe keeps a primacy for the proposal of a new model of integrated territorial sustainable development through the regionalization of intervention, the valorization of rural landscape and the protection of high quality agro-food products.

The new approach of CAP reviews the relation Food-Agriculture-Environment in a different perspective, pushing the next CAP reform towards greening and food security. Also institutions and stakeholders are addressed to make short the distance between consumer and producer in order to achieve protection of environment, farmers health and livestock wellbeing.

The high quality agricultural products are the output of rural areas specificity depending on periodicity of seasons and common rites of agricultural operations such as grape harvest and consumption.

Local tradition is better expressed whereas interaction between natural resources and rural community is more pronounced. The protection of high quality products in terms of production, of process industry, of consumption ways is one of the main goals of European Union. European Union, indeed, has achieved in advance adequate and complete rules in such great way that other non-European Countries have adopted to protect their products too.

Since the last decade of past century among the best measures of European Union it's possible to notice those ones concerning the attribution of quality labels to guarantee excellent agro-food products: Product Denomination origin (P.D.O), Protected Geographical Indication (P.G.I), Traditional Speciality Guaranteed (TSGs), Organic agricultural products⁴.

Totally agro-food products with Eu label are 1033, among which 515 PDO, 476 PGI and 40 TSGs. Italy, thanks to 230 products with Eu quality label, has the leadership in production and in registration of the Eu quality labels. France, Spain, Portugal and Greece have respectively 184, 150, 116 e

90 products with Eu quality labels assigned in the period from 1996 21th June to 2011 30th June.

The leadership of Italy in this case is quite expected. Italy has a different naturalistic, environmental heritage (from a geological, morphological and climatic point of view), a variety of micro-environments, and a concentration of different local stories, tradition and cultures expressed in an emblematic way also in models and food rites. Italian food is well known in all over the world and Italian agro-food products are exported everywhere and they are enhanced by initiatives and organizations such as *Slow Food*, *Eataly Qualivita*, *Salone del Gusto*, *Terra Madre*. Also France, Spain, Portugal and Greece have an old agrarian tradition and like Italy they have different territorial assets and peculiar natural resources.

Observing the data of the products covered by the EU labels, the big number of Eu labels (PDO, PGI and STGs) on products coming from third countries, is the clear proof of the primacy of EC law able to attract attention and subscriptions on a planetary scale.

Since 1992, the first regulations in the field (Art. 12 of Regulation (EEC) No. 2081/92 on the IGP and DOP; Art. 16 of Regulation (EEC) No. 2082/92 on the STGs⁵), stressed the opportunities to establish a reciprocal guarantee, valid for the production of quality from both European countries and not European ones. In 2006 regulations also grant to third countries to chose national audit bodies. In other words, European Union protects agricultural food production over which European Union can't use control. It's very urgent to solve this normative paradox since, in 2010-2011 two-year period, the number of application forms coming from non European Countries has duplicated from three to six. Until 30 June 2011, 10 applications on 19 were Chinese like so five products on six, that have PDO labels, are Chinese. Very often these Chinese products are cultivated in polluted areas very close to factories.

So Europe has primacy in regulations about the protection of quality products. Also Italy, has the biggest number of protected quality products through EU labels, therefore in nineties Italy, on a national scale, felt need to safeguard amazing quality food heritage⁶ through rules. The Ministerial Decree of 18 July 2000 defines traditional agro-food products (TAP) all productions "whose methods of processing, preservation and seasoning are consolidated over the time, homogeneous across the whole region, according to traditional rules, for a period of not less than twenty-five years⁷" (see Fig. 1).





Fig. 1. Traditional Agro-food Products (TAP) in Italy (Source: MPAAF, list published in Ordinary Supplement no. G.U. 167, 11 July 2011).

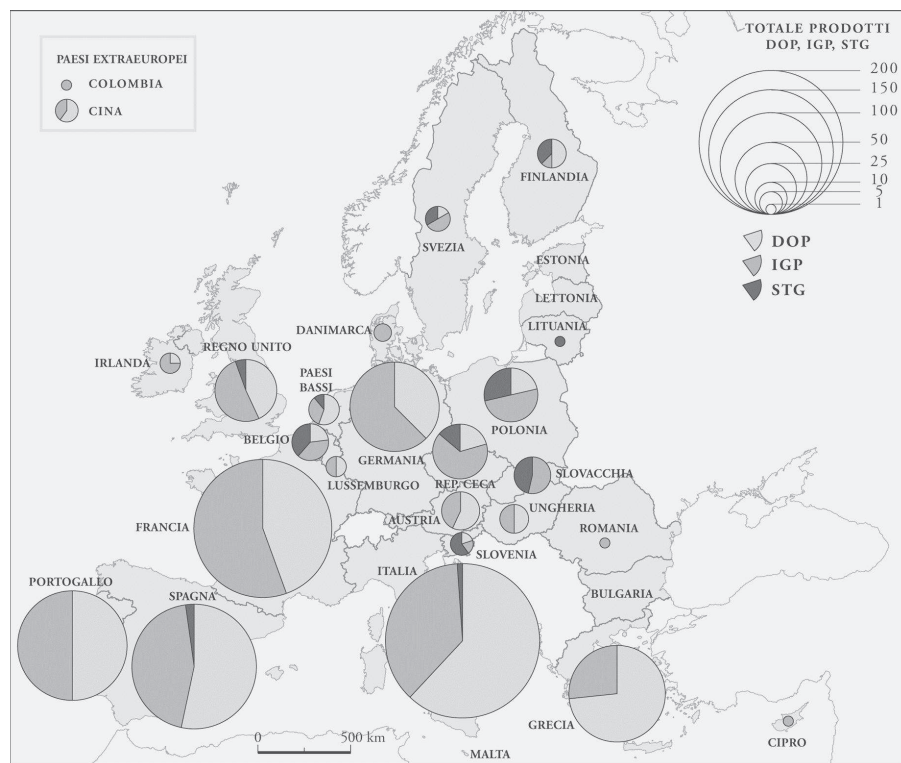


Fig. 2. DOP, ITG, STG, agro-food products in Europe 2011 (Source: <http://epp.eurostat.ec.europa.eu>).

Italy therefore has a leading position in European leadership: sensitivity towards tradition as a guarantee of food products and the sustainability of agricultural practices. Our country has therefore used a strong stimulating action, pushing EU for adopting rules for the protection of the quality and safety food. In January 2002, European Food Safety Authority (EFSA) in Parma (Italy), a politically independent body from all the countries of European Union, with functions of scientific advice and information on the different risks of food chain⁸. In 2009 European Commission sent a Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on agricultural product quality policy⁹. Moreover, with the publication in October 2008 of the Green Paper on agricultural product quality: product standards, farming requirements and quality schemes, the European Commission gathered opinions and suggestions directly by the Associations and EU citizens (involved in agricultural issues), and in 2009, European Commission issued a document that stressed the importance of the quality of production as the main instrument to achieve higher and more competitive incomes; moreover the document underlines two main aspects: the need of quality product is combined by more information and news about it, the urgent need to establish safeguard rules for quality products marketed in non European Countries (see Fig. 2).

Concerning problem of international marketing and the risks of counterfeiting, in the absence of specific legislation, the Commission invites immediately to reinforce the European Observatory on Counterfeiting and Piracy established in 2009, to deal with current agreements with third countries WTO and to prepare individual bilateral agreements. Certification and labeling thus become keywords to protect the quality of the product through the transparency of procedures and traceability of all components, and at the same time to meet the increasingly urgent consumer request for information.

Paradoxes and contradictions of an evolution currently at risk

The itinerary and the process of conversion to the territory of the international agricultural policies in recent years are put at risk by the fact that too many agricultural areas are back to the annual monocultures. Annual monocultures, already responsible for serious damage (desertification and soil pollution), today are paradoxically

presented to protect the environment and subsidized to produce biomass for energy (climate and energy package “20-20-20”). This explains the debate around drafting of the new CAP reform (2014-2020); old and recent contrasts between family farming systems and agro-industrial products enforce the decision-makers towards a basic imperative: consider production reality in a realistic and practical approach, starting in each case from the territory and farming factories that work there, in other words from the geography of agricultural systems¹⁰. The next CAP reform will have handled a lot of issues: to begin with European instances themselves are under discussion and the economic global crisis is hitting Europe for a long time.

The search for new intervention policies in Western Countries is, therefore, full of contradictions:

From one side the definition of new policies affirm the necessity to reduce human intervention, from the other side there are incentives towards mechanization;

From one side there is the willingness to get agricultural production through traditional methods, from the other side there are pressures towards extensive agricultural production;

Moreover, in 2014 there will be celebrated family agriculture but there are a lot of incentives for ethanol-fuel.

Even the shocking data of malnutrition and mortality caused by hunger confirm clear paradoxes of the current agro-food situation: Western Countries recorded surpluses in agricultural production while food prices increase (between 2007 and 2008 have soared by as much as 52%); the lands where the climatic and environmental conditions are better are less cultivated (the inter-tropical African area import food that could be produced there and even exported); land is missing but the hilly and mountainous land is abandoned; in the meanwhile in less developed Countries there are land grabbing in order to grow no food crops. Countries where people are starving as Perù, Brasil and Asia export food products obtained from speculative agriculture; malnutrition and food disease (diabetes and obesity) in both Western Countries and in less developed Countries. Geography can give a large contribution on all these issues.

Climate change, environmental damage of productivism and the abandonment of rural areas, but also the increasing strong demand for agricultural food production of certified quality and especially the economic crisis that hit the world in



the first decade of the third millennium forced people to consider the primary sector in a different perspective.

Just during the ongoing debate for discussing the new CAP reform the concept of a multi-functional and sustainable agriculture has been clouded by a succession of events: on one hand the international economic crisis requires the reduction of incentives for those areas with regional disparities of development, from other hand the pursuit of high profits at lower operating cost reintroduces, with support for energy crops, the same mechanism that favors annual monocultures and large-scale productions, in other words the sectoral development model, that had been judged negative for environment damage caused, started again.

And while European countryside are filling with overrunning plants for the production of biomass (rapeseed in particular), the new CAP will have to consider that the care of the fields and the beautiful rural landscape, insured by human intervention, are the only real guarantee of future productivity. If in the past the order and the beautiful were opposed to the fear of famine, as we are reminded Marco Terenzio Varrone in his *De re rustica*, today food insecurity, hydrogeological imbalance and desertification of soils are the main problems.

Debate over the six months during Expo 2015 will focus on these contradictions. The event will contribute to propose concrete solutions “capable of: deepening the relationship between diet and health; improving the quality of life and encouraging aware choices of production and consumption, proposing a discussion on Science and Technology in service of humanity; promoting sustainable development and environmental protection; considering solidarity and cooperation on the basis for development.

Why geography is directly involved in interpretation of relationship between Food-Agriculture-Environment

Today thank to a renewed awareness about the importance of relationship between Food-Agriculture-Environment, people but above all policy makers and experts know that is not more enough take in account just one socioeconomic aspect o one problem but they have take in account the interconnection between beauty of rural land, quality of agro-food products and food security.

The geographical science, which studies the complex relationship between mankind and environment and on different scale of investigation, is asked to find out directly, with its diverse and extraordinary methodological apparatus, the new demand of knowledge and learn to know the relation between Food-Agriculture-Environment means in fact take in account different integrated perspectives: demographic, naturalist, agricultural, historical, political, economic, health, technological, geographical, social, cultural, aesthetic and ethical.

On the other hand the interpretation of the close relationship between agricultural practices and environmental resources has already stressed the fundamental role of geographic research. On one hand, national and international agricultural policies have stimulated to find out the value of the land and the need for its sustainable exploitation, on the other side urging the global rethinking of the function of the primary sector and eating patterns, as well as the levels of consumption in various regions of the world, in order to make them fairer, sober and healthy.

Nature, culture, technology, economy and quality are therefore involved in defining relation between Food-Agriculture-Environment. In this new perspective also socio-political and ethical issues are taken in account together with the more specialized territorial agronomic discussion. It's therefore evident the contribution of Geography to the understanding of the relation between Food-Agriculture-Environment. The following three fields of geographic application express very well the potentialities of our discipline: the interpretation of hunger in the world, the analysis of the variety of traditions and eating patterns, the study of the link between rural landscapes and historical production of high quality food. The most pressing issue that, at different geographical scales, intervention policies on the primary sector have always been inquiring is to understand the relationship between population growth and available resources.

Many scholars wondered if and when the exponential growth of the population will generate environmental imbalances and consume all available resources on earth¹¹.

Ratio of population growth/environmental impact is generally presented with accents alarmist (identity of Ehrlich, carbon footprint, water footprint of food), even if the rise in global population, instead of being an asset in terms of workforce capacity and production and innovation, must necessarily represent just increased consump-



tion and high environmental impact¹². In order to eliminate the syllogism whereby the growth of population rises the danger of famine, malnutrition and mortality, it's enough observing that over the last fifty years compared to an explosive population growth, which has effectively doubled the total number of inhabitants of the planet earth, the availability of food has increased from 2300 to 3000 calories per capita per day. The agro-food production in terms of quantity and in absolute terms, is indeed more than doubled and it would be enough to sustain the entire population of the world (over \$ 7 billion), since growth trend of agro-food production proved itself capable, in the same period of time, to feed twice the population, but also to raise the number of available calories per capita. Unfortunately, UN state that the problem of hunger in the world is far from solved (24,000 people die every day for lack of food). It's necessary to seek the true causes of such terrible starving mortality (absolute or occult), which cannot be attributed either to environmental factors (many developing countries have large not yet used natural resources), nor technological factors as the failure of the "green revolution" has proved itself with the desertification of agricultural spaces better cultivated because most industrialized. The causes of more than one billion of underfed population are: social disparities, and inadequate agricultural and trade policies put in place not only at the international level, but also and in many cases, particularly at the national and regional levels.

In 2000 Millennium Declaration was adopted by UN General Assembly and it stated eight Development goals, first of all food sovereignty meant as fundamental right to access to food, seven years later, the Declaration of Nyéléni (named after a legendary peasant Malay), signed by 500 representatives from more than 80 countries around the world at the end of March 4, 2007 held in Sélingué (Mali). Declaration of Nyéléni, represents an action of awareness about problem of hunger in the world by civil society.

This document represents an out-and-out international manifesto to define and protect relation between Food-Agriculture-Environment on any geographical scale. It states indeed: "Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems"¹³. In it the right to food is combined with the duty to safeguard natural resources and the right of people take back control of the food

production systems. It is an international program of action that stresses the necessity to integrate local. An action to claim the importance of territory and regionalization of responsibilities against interests dominated by transnational agro-food industries, economic and political imperialism, neo-colonialism and land grabbing¹⁴.

The contribution of geographic research to get answers in several questions is great.

Not only in order to analyze hunger, wastes, lost but also to deal with food tradition, different food needs on basis of living conditions, different age classes (people in the same range of age) and so on. Also experts who study the relationship between nutrition and calories need report the gap of appropriate scientific publication about that¹⁵. Detailed Studies is missing, what do you need to eat if you live in mountain, or near the sea? Does exist the perfect diet for all? And is right to speak about a food standard suitable for all, always and everywhere? And how much the different food tradition match with the real need of climate and environmental conditions in which a community live?¹⁶ There is yet a huge scientific path waiting answers from geography, because the questions are not only regarding environmental and physical factors, real caloric need per person, but also agrarian models, habits in local food tradition, in dishes, recipes, family stories. It's possible that the food traditions are unawares matched with living conditions of a community or they are the output of an adaptation of climatic and environmental influences.

Further field of application asks geography: the real possibility of using the rural landscape to ensure quality and origin of agro-food products. Today, demand, especially in the upper classes and in most developed countries, prefers foods and dishes rooted in the variety of microenvironments, regional traditions that are real heritage of peasant culture. To document this culture, is the singularity and uniqueness of rural scenery, historical result of human labor; special and unique result of the genius loci where you can find: colors, flavors and fragrances, cultural roots, eating habits, rhythms of the agricultural year, folk songs and rhythmic old dances at the time that marked the efforts of men and women. If the industrialization and mechanization have satisfied the Western countries and approved the flavors, the reaction in the post-productivist is "landscape table", that is, in the rediscovery of the goodness of the local specialties combined with beauty of their places of production. The contribution of geography, which has always been teaching to read



and interpret the shapes of the rural landscape, range over the ability to promote the multimedia functions of the primary sector to the possibility of enhancing the agricultural food production. The capability to combine “landscapes and taste”, culture and nature, farming techniques and culinary traditions, is explicitly emphasized by the national and international policies, that today protect both the historic rural landscapes and typical local productions.¹⁷

I would like to close my speech emphasizing a final level of involvement of geographical science in the interpretation of the relationship Food-Agriculture-Environment: the erudition contribution of our discipline. It's possible underline two different results: a extraordinary cultural message of cosmopolitan value but also an interpretative risk to consider human being as “output of food and environment”.

When the scientific reasoning prefers environmentalist, classificatory, mechanistic perspective, interpretation tends to “discover” a cause-and-effect relationship between human choices and objective data (soil, climate, profit, market) and thus ends up classifying each other and establishing a hierarchy between the different regional situations and food traditions. In this way, as Feuerbach says, human being is “what he eats”¹⁸ and then who eats more, think better and worth more. Instead, if scientific debate focuses on historical-social, humanist and idealist perspective it would be possible consider human choices contingent, open to hope for change, and not so dependent from environmental influences, level of technology and production. In this perspective, agricultural and cultural diversity will be enhanced.

Therefore, geography, that in the course of its epistemology growth, has well experienced the mortification of human potentialities and capabilities¹⁹, can make a crucial contribution to keep away from any form of interpretative determinism. Our discipline knows how keep survey far from any risk of exploitation and degradation of knowledge. Geography underlines, through the analysis of case studies, the uniqueness of regional choices, always new and different, that every society established with its surrounding environment. Geography is open to new ideas and teaches us not to anchor actions and behavior to social codes, formulas and maps (genetic or not) and thus it helps hope for change of social, environmental, cultural, political, economic, food, both condition and situation. The more authentically “geographical” cognitive approach

certainly encourage to produce “regionalist and cosmopolitan” knowledge. There is, indeed, a large variety of solutions and decisions adopted by human being. Inevitability of many conditions of underdevelopment has been considered very of ten fatalistic consequence of the constraints of nature and technological lags. The real contribution of geography in this contest is to reduce determinist interpretation (imperialist approach), also indicating possible political-social solutions.

References

- Almagià R. (1945; 1953), *Fondamenti di geografia generale*. Perrella, Roma, Voll. I; II.
- Bryant C.R., Grillotti Di Giacomo M.G. (Eds.) (2007), *Quality Agriculture: Historical Heritage and Environmental Resources for the Integrated Development of Territories*. Proceedings of the International Colloquium, Brigati, Genova.
- Chapuis R., Mille P. (2001), *Systèmes et espaces agricoles dans le monde*. A. Colin, Paris.
- Churchill Semple E. (1911), *Influences of Geographic Environment, on the Basis of Ratzel's System of Anthropogeography*. New York, Henry Holt and Company, XVII.
- FAO (2012), *Le donne, l'agricoltura e la sicurezza alimentare*. Roma.
- FAO (2014), *Agricoltura Familiare*. (<http://www.fao.org/news/story/it/item/260808/icode/>) accessed 14/10/15.
- FEDERAL MINISTRY FOR ECONOMIC COOPERATION AND DEVELOPMENT (2012), *Investments in Land and the Phenomenon of Land Grabbing Challenges for Development Policy*. BMZ Strategy Paper, 02.
- Gili Borghet A.M. (1991), *Geografia Ambiente Salute*. Libreria Cortina, Torino.
- Grain (2011), *Land Grabbing and the Global Food Crisis*. 11.
- Grillotti Di Giacomo M.G. (1992), *Una geografia per l'agricoltura Metodologie di analisi e prospettive applicative per il mondo agrario e rurale italiano*. Vol. I, Reda, Roma.
- Grillotti Di Giacomo M. G. (1994), *Agricoltura e ambiente: un rapporto già definito nell'epoca classica*. In F. Citarella (Ed.), *Studi geografici in onore di Domenico Ruocco*. Vol. I, Napoli, Loffredo, pp. 285-302.
- Grillotti Di Giacomo M.G. (1995), *Agricoltura e ambiente accelerata evoluzione di un rapporto millenario*. In P. Brandis, G. Scanu (Eds.), *Atti IV Convegno internazionale di Studi pianificazione territoriale e ambiente “La Sardegna nel mondo mediterraneo”*. Pàtron, Bologna, pp. 145-161.
- Grillotti Di Giacomo M.G. (2004), *Metodologia UGI_GECOAGRI*. Meeting GIAHS Project, FAO, (www.gecoagrilanditaly.jimdo.com).
- Grillotti Di Giacomo M.G. (1995), *Guida alla mostra “Campagne nel mondo: rapporti e paesaggi da salvare”*. Dedalo, Rieti.
- Grillotti Di Giacomo M.G. (Ed.) (1996), *Geografia e agricoltura per “seminare meno e arare meglio”*. Geotema, anno V, n. 5.
- Grillotti Di Giacomo M.G. (1998), *Introduzione a una geografia comparata delle aree agricole europee ed extraeuropee*. In M.G. Grillotti Di Giacomo, L. Moretti (Eds.), *Atti del Convegno geografico internazionale “I valori dell'agricoltura nel tempo e nello spazio”*. Vol. III, Brigati, Genova, pp. 911-938, tavv. fuori testo.
- Grillotti Di Giacomo M.G. (1998), *Da Plinio a Mac Sharry: quale modello per la rinascita dell'agricoltura?*. In M.G. Grillotti Di Giacomo, L. Moretti (Eds.), *Atti del Convegno geografico*



- internazionale "I valori dell'agricoltura nel tempo e nello spazio". Vol. II, Brigati, Genova, pp. 375-380.
- Grillotti Di Giacomo M.G. (2000), *Atlante Tematico dell'Agricoltura Italiana*. Società Geografica Italiana, Roma.
- Grillotti Di Giacomo M.G. (2000), *Una geografia per l'agricoltura. Lo sviluppo agricolo nello sviluppo territoriale italiano*. Vol. II, Società Geografica Italiana, Roma.
- Grillotti Di Giacomo M.G. (2001), *Geography Epistemology as a Cosmopolitan Project*. In L. Buzzetti (Ed.), "Geography for Postmodern Society". Società Geografica Italiana, Roma, pp. 375-390.
- Grillotti Di Giacomo M.G. (2001), *A New Era for Geography and Agriculture*. In P. Di Carlo, P. Falcioni (Eds.), *New Rurality and Agricultural Policies*. Brigati, Genova, pp. 9-13.
- Grillotti Di Giacomo M.G. (2002), *The Transition of European Agricultural Policy: from the Sectoral to the Territorial Model*. In L. Buzzetti (Ed.), "Geographical Renaissance at the dawn of the Millennium", Regional Conference IGU, Durban 4-7 August 2002, S.G.I., pp. 197-216.
- Grillotti Di Giacomo M.G. (2003), *La nouvelle saison de l'agriculture entre modèle nord-atlantique et modèle méditerranéen*. In L. Laurens, C. Bryant (Eds.), "La durabilité des systèmes ruraux, une construction sociale et culturelle", Actes du Colloque de la Commission UGI Sustainability of Rural Systems, (Rambouillet-France 2001), AVL Diffusion, Montpellier, pp. 89-98.
- Grillotti Di Giacomo M.G. (2005), *The Italian Rural Systems Atlas*. Brigati, Genova.
- Grillotti Di Giacomo M.G. (2005), *Our Countryside's Agri-Cultures: Quality Landscape, Values and Tastes, 85 Scientific Poster*. WIP Edizioni, Bari, 12-11.
- Grillotti Di Giacomo M.G. (2005), *Le petit Atlas de l'agriculture italienne*. Brigati, Genova.
- Grillotti Di Giacomo M.G. (2007), *Il paesaggio rurale da paradigma scientifico a fattore di sviluppo locale*. In M.C. Zerbi (Ed.), *Il paesaggio rurale: un approccio patrimoniale*, CAP. III, Giappichelli, Torino, pp. 47-80.
- Grillotti Di Giacomo M.G. (2012), *Nutrire l'uomo, vestire il Pianeta Alimentazione-Agricoltura-Ambiente tra imperialismo e cosmopolitismo*. Franco Angeli, Milano.
- Gustavsson J. (2011), *Global Food Losses and Food Waste Extent, Causes and Prevention*. FAO, Roma.
- Gustavsson J., Cedeberg C., Sonesson U., Van Otterdijk R., Meybeck A. (2011), *Global Food Losses and Food Waste*. In "Save Food", Dusseldorf, pp. 1-26.
- Ogang C. (2012), *Sfide di finanziamento agricolo: il caso dell'Uganda*, (<http://worldfarmersorganisation.net/img/user/files/newsletter%20it.pdf>) accessed 17/02/2015.
- Sun Da-Wen (2011), *Handbook of Food Safety Engineering*. John Wiley & Son editor, New York.
- Sonnino A., Ruane J. (2012), *La innovación en agricultura y las biotecnologías agrícolas como herramientas de las políticas de seguridad alimentaria*. In E. Hodson De Jaramillo, "Biotecnologías: el compromiso social de la ciencia", Pontificia Universidad Javeriana, Bogotá, Colombia.

Websites.

- <http://www.deagostiniografia.it/wing/confmondo/confronti.jsp?goal=100077§ion=2&year=2015&title=PIL%20totale>.
- http://www.ijad.org/pub/factsheet/women/women_i.pdf accessed 17/02/2015.
- <http://www.saicosamangi.info/economia/globalizzazione-biodiversita.html> accessed 17/02/2015.
- <http://www.foodsovereignty>, accessed 17/02/2015.

- <http://epp.eurostat.ec.europa.eu>, accessed 17/02/2015.
- <http://unstats.un.org> accessed 17/02/2015.
- <http://ec.europa.eu/agriculture/quality/door>, accessed 17/02/2015.
- <http://faostat.fao.org>, accessed 17/02/2015.
- <http://faostat.fao.org/site/339/default.aspx>, accessed 17/02/2015.
- <http://www.census.gov>, accessed 17/02/2015.
- <http://www.fao.org/corp/statistics/en/>, accessed 17/02/2015.
- www.efsa.europa.eu/it/, accessed 17/02/2015.
- www.gecoagrilanditaly.jimdo.com, accessed 17/02/2015.

Notes

- The transition of CAP from a sectoral development model to a territorial development model can be divided into six programmatic steps:
 - Incentive in order to increase production and yield per unit (in the sixties).
 - Policy of Price Support and Structural Policies (in the seventies and the eighties).
 - *set-aside* Policy and strengthening of Structural Funds addressed to the integrated territorial development (IMP - Integrated Mediterranean Programs, Leader I 1991-1993 - and Leader II 1994-1999 - *Liaisons entre actions de développement de l'économie rurale*, Rural Development Programs (nineties).
 - integrated territorial development policies, development of multifunctional and sustainable agriculture (Leader +, Agenda 2000 Reform).
 - regionalization of support interventions and introduction of single farm payment not linked to production but to the adoption of Good Agriculture Practices that means in the respect of environment, farmers, consumers and livestock safe.
 - reduction of direct incentives and support to greening and food security interventions.
- World Heritage Convention dell'UNESCO* goes in the same direction with its further integrations, in particular, "Applicative Orientations", in 1995, *represent the cultural landscape* as "the result of the action and interaction of natural and human factors".
- The paper has been published in the Acts of the Colloquium. It emphasizes the "urgent need to build a catalog of rural landscapes, especially those ones at risk of extinction; a geographical catalogue to consult to let know the evolutionary cycles of agricultural areas and to build political and economic interventions in a aware and focused way". See Č.R. Bryant, M.G. Grillotti Di Giacomo (Eds.) (2007), *Quality Agriculture: Historical Heritage and Environmental Resources for the Integrated Development of Territories*. Proceedings of the International Colloquium, Brigati, Genoa, Italy.
- The preservation of traditional products of quality and the enhancing of food products specificity are achieved at first by the EC Regulations n. 2081/92, which regulates the assignments of PGI and PDO labels, and the Regulations EC. 2082/92, which regulates the assignments on certificates TSGs labels. Later the New EC Regulation no. 510/2006 and the new EC Regulation no. 509/2006 have improved them. The production procedure guideline of products, which have got European quality labels, have to specificity: the name and type of the product, the boundaries of its geographic area of reference, the elements that attest its link with the geographical environment of origin, the detailed and complete description of the techniques and stages of production, the codes of regulations reference, which must be clearly legible on the label; inspection bodies officially recognized at European level which will do the periodical inspections in related factories of produc-



tion. Moreover, the achievement of quality EU labels requires, through the procedure guideline submitted by the producers themselves, a strict respect of production rules and to accept the costs of the required audit by appointed Control Body and the inspections themselves.

⁵ The two Regulations considered the possibility to protect also quality products coming from non – European Countries “... provided that: – the third country is able to give identical or equivalent guarantees ... – the third country has an inspection system equivalent ... – the third country agree to provide to corresponding agricultural products and food stuffs benefiting of EU label of specificity, a protection equivalent to that one existing in the EU”.

⁶ DM 8 September 1999, n. 350. Regulations for the identification of traditional products referred to Article 8, paragraph 1, of Legislative Decree no. Apr. 30, 1998, n. 173; OJ No 240 of 12 October 1999.

⁷ The assignment of TAP label is therefore an Italian brand name attributed by the Ministry of Agriculture, Food and Forestry (MiPAAF) as proof of the interaction between: unique food traditions, ingenious production techniques and local natural resources. It's interesting to underline that the link with the tradition in 2008 led to a joint effort between the Ministry of Agriculture, Food and Forestry and the Ministry of Heritage and Culture, which allowed to attribute to TAP the status of direct and concrete expressions of Italian civilization, just like all other National Cultural Heritage.

⁸ The decision to create a supranational authority for the protection of food, as an independent source of scientific advice and communication on risks associated with the food chain, was taken as a result of repeated food concern in the late nineties.

⁹ COM (2009) 234, Commission of the European Communities: Communication of European Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on agricultural product quality policy, Brussels, 28.5.2009.

¹⁰ That is what is claimed by Geographers belonging to GEOAGRI-LANDITALY group: every European Commission support must start from farms and compare with the agricultural systems that characterize the area where incentives are allocated. See Grillotti Di Giacomo M.G. (2000), *Thematic Atlas of Italian Agriculture*, SGI, Rome.

¹¹ The significant decline in global reserves of cereals and the consequent increase in food prices (more than 50% between 2007 and 2008) confirm the concerns relating to the ability of populating the earth, although the latter phenomenon is due to various factors: ongoing conflicts in the Middle East and in various parts of the world, the growing number of hectares of land addressed to non-food crops (biomass for energy production), financial speculation on food products, land grabbing by rich and developed Countries to the detriment of developing Countries.

¹² For further depth analysis see Grillotti Di Giacomo M.G., 2012, *Nutrire l'uomo Vestire il pianeta Alimentazione-Agricoltura-Ambiente tra imperialismo e cosmopolitismo*, Angeli, Milano.

¹³ It puts those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations. It defends the interests and inclusion of the next generation. It offers a strategy to resist and dismantle the current corporate trade and food regime, and directions for food, farming, pastoral and fisheries systems determined by local producers. Food sovereignty prioritises local and national economies and markets and empowers peasant

and family farmer-driven agriculture, artisanal fishing, pastoralist-led grazing, and food production, distribution and consumption based on environmental, social and economic sustainability. Food sovereignty promotes transparent trade that guarantees just income to all peoples and the rights of consumers to control their food and nutrition. It ensures that the rights to use and manage our lands, territories, waters, seeds, livestock and biodiversity are in the hands of those of us who produce food. Food sovereignty implies new social relations free of oppression and inequality between men and women, peoples, racial groups, social classes and generations (Source: www.foodsovereignty).

¹⁴ Accepting instances of Declaration of Nyéléni, Fao defines food security through four parameters: The availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports; Access by individuals to adequate resources (entitlements) for acquiring appropriate foods for a nutritious diet. Utilization is commonly understood as the way the body makes the most of various nutrients in the food. Sufficient energy and nutrient intake by individuals is the result of good care and feeding practices, food preparation, diversity of the diet and intra-household distribution of food. Combined with good biological utilization of food consumed, this determines the nutritional status of individual. Stability of food availability. According Fao survey, even in 2006 16% of population are not in conditions of food security.

¹⁵ Information do not exist or are unclear ... I will only say that at a time when you learned how to do everything (or almost) with DNA, it seems strange that it is still a matter of doubt how much energy is needed to keep alive a man”, in Arienti G. (2003), *Le basi molecolari della nutrizione*, Piccin Nuova Libreria, Padova, p. 4.

¹⁶ Recently this topic has been dealt with by Rotilio G. (2012), *Il migratore onnivoro Storia e geografia della nutrizione umana*, Carocci, Roma.

¹⁷ For this purpose Inter-University research group GEOAGRI-LANDITALY developed a document *Metodologia di Indagine e Proposte Applicative per lo Sviluppo Integrato dei Sistemi Locali Rurali* (SIAE 2007 index no. 2007005663) in which are described the peculiar aspects of the different rural routes through guidelines and research pathways well tested. New social and economic functions attributable to rural landscapes are numerous: promotion of integrated local development; commercial enhancement of quality agro-food productions; guarantee the uniqueness and exclusivity to the consumer; preservation and capitalization of sustainable and virtuous agricultural practices; protection of natural resources and environmental balance, strengthening of economic activities and agri-tourism supply; transmission and amplification of ethical and social message.

¹⁸ Ludwig Andreas Feuerbach in his book “*Il mistero del sacrificio o l'uomo è ciò che mangia*” (1862), he states the inseparable unity of body and spirit inasmuch as that in order to have better ideas, you should only eat better; this thesis still fascinates some philosophers and nutritionists.

¹⁹ In twentieth century deterministic interpretation of the relationship between mankind and environment has led the geography, at first, to be exploited by the Nazi-Fascism and then to interpret the relationship between mankind and environment depending on, more or less, production techniques used by people and in particular in chemical industry, mechanical engineering and genetic engineering (see Grillotti Di Giacomo M.G. (2001), *Geography Epistemology as a Cosmopolitan Project*, in L. Buzzetti (Ed.), “Geography for Postmodern Society”. Italian Geography Society, Roma, pp. 375-390).

