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## Traditiovations: Creating innovation from the past and antique techniques for rural areas

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### ABSTRACT

Many agricultural activities are today considered unsustainable for the presence of a large number of externalities involving environment and human health. Almost paradoxically, the future of a modern agriculture seems to be linked also to a return to the past and to a re-appropriation of marginalized, ignored or lost traditions on the base of local cultural heritage and traditional knowledge. These clusters of traditions may represent a precondition to innovate and foster local development generating, thanks also to the support of science and research, innovative practices and techniques deriving from past traditional knowledge or re-invented techniques. Critical analysis and validation of these antique practices by science and research are the prerequisite for the development of Traditiovations: in this article two examples of such Traditiovations are identified and described in which practices and techniques, deriving from historical or past traditional knowledge, show the capability to operate as innovations, despite their apparently obsolete and out-of-date features, in production and management.

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### 1. Introduction

Often critical interrelations among agriculture, rural areas, innovation and development are placed at the core of many strategies directed to achieve more competitiveness, efficiency, high quality food products, environmental protection and adequate incomes for the firms/farms and the communities involved. A competitive agriculture, as a result of improvements in quality and productivity and the introduction of innovation and new technologies, may thus produce also significant contributions for the achievement of increase in the quality of life for the communities living in a given area. Innovation and new technologies become therefore crucial elements within rural development strategies above all for those rural areas characterized by marginal and under-development conditions.

Conventional innovation diffusion and techno-transfer strategies (both at firm/farm and territorial level) are usually directed to solve specific technical issues as replies to productive needs eventually supported by learning processes based on technical

facts and messages. Nonetheless, these conventional approaches are likely to be exclusively focused on an “engineering” problematic dimension (techniques, methods, technologies, etc., and the corresponding organizational and social relations), but many operational experiences may evidence that very limited success in innovation diffusion or techno-transfer process failures can be caused, among others, also by the incapacity of taking into proper consideration the parallel dynamics of specific cultural environments (mentalities, approaches, adjustment attitudes, etc.). Any innovative or change process definitively cannot be separated from a “living context” composed of already existing mentalities, behaviors, attitudes, visions, approaches and practices interesting all the agents acting in a given operative scenario. These operative contexts appear as “networks of networks” where material (environmental systems, biodiversity, natural resources, infrastructures, landscapes, economic agents, etc.) and immaterial (traditions, expertise, cultures, religions, languages, arts, etc.) resources constantly interact.

When implementing innovation diffusion and techno-transfer schemes, this extra-technical and extra-economic problematic dimension still remains maybe scarcely considered, less well recognized and poorly studied: sometimes the cultural point of view of an innovation (or an innovative process) may appear as a “trouble” in the eyes of experts, since it implies extra efforts, risks and complications. Excluding these issues and liquidating them as low profile aspects dramatically contribute, however, to create operational gaps in which this cultural point of view rarely

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collimates with the pure technical and scientific one. Innovation diffusion, technological transfer and knowledge flows consequently remain almost essentially biased on technical facts, schemes and formal training programs.

Sometimes also when adopting a multidisciplinary approach, these immaterial/intangible resources tend to be relegated into an essentially intellectual space where their living role is often underestimated or ignored as well as the opportunities they may generate within a wider local development perspective.

Similarly, the links between agriculture and rural space may notably go far beyond the economic dimension expressed by production, income generation and employment because agriculture, as widely recognized, heavily influences soil's and water's quality as well as other critical resources such as landscapes, traditions and values.

Reconstruction of those links connecting agriculture with the rural dimension where it operates at present is likely to appear as an urgent need: consequent perspective widening acts as an essential pre-requisite to overcome a too rigid separation of agricultural production from local heritages and values. This disconnection is probably one of the most negative consequences of those industrial approaches applied to agriculture, which, among others, have caused a remarkable dependency of the agricultural sector not only on technical and mechanical inputs but also on industrial values and principles.

Unquestionably these industrial approaches have provided relevant contributions in solving many problematic questions distinctive of agriculture and rural world in the past: food security, elimination of famines, adequate incomes, higher productivity and better life conditions for farmers, peasants and their families. Nonetheless industrial agriculture also shows many controversial aspects and externalities at present at the core of a wide debate at international level: presence of relevant surpluses, pollution, soil erosion, biodiversity destruction, food contamination by chemical pesticides and fertilizers, severe livestock diseases (BSE, Avian and Swine Flu) and the related food panics, etc. In addition a too much industrialized food system has lowered food quality and altered the traditional relations between food and consumers with an increasing diffusion in advanced economies of chronic diseases linked to diet (obesity, heart diseases, strokes, Type 2 diabetes and cancer): in several occasions, food is thus putting human health at risk. At the same time the current rationale in the modern large scale agrobusiness, with its exasperated dynamics, is putting at risk the existence of many farmers and rural communities in developing countries because in several cases it has aggravated rather than solving their conditions (Shiva, 2006).

These externalities and emergences have consequently pushed to focus to pay a major attention to the problem of sustainability of industrial agriculture. Also a progressive change in food consumption models (thanks to higher incomes, a major attention to high quality typical products and the diffusion of organic agriculture) is contributing to stimulate a renewed attention to more genuine and healthier food products.

One of the possibilities offered by re-sewing agriculture with its cultural contexts and heritages is the opportunity to look again in the "past": this tendency is already observable in a progressive emphasis in a return to food products from the "past", adaptations of traditional production styles, certified quality of geographical origin or genuineness and salubriousness of traditional products. Surely the diffusion of organic farming, the pushes for GMO-free products or the demand for raw materials, which are derived from autochthonous or abandoned varieties, are contributing to this return to the past: in Italy there are several consolidated examples of reintroduction of such varieties as in the case of "Farro" (spelt—*Triticum turgidum dicoccum* and *T. spelta*) (Miceli et al.,

2000) also widely adopted for the preparation of typical local dishes of the old Italian peasant cuisine. The general feeling underlying the adoption of such traditional products is their capability to translate this remarkable return to a "past" into virtuous consumption models, practices and lifestyles even if sometimes creating and amplifying idyllic visions of the rural world.

Going beyond the marketing strategies also adopted by great agrofood corporations to exploit these feelings in consumers, what is clearly emerging is the possibility to support a conversion to a more sustainable agriculture and rural activities, thanks to the return of traditional elements, praxes and techniques through a process named "re-switching of techniques".

Almost paradoxically, the future of a modern sustainable agriculture, as well as global sustainable lifestyles, seems to be linked to a return to the past and to a re-appropriation of marginalized, ignored or lost traditions in agriculture and other rural activities or re-inventing new traditions on the base of local cultural heritage and traditional knowledge with relevant feedback learning processes.

Traditional knowledge has focused great attention on scientists above all in terms of Traditional Ecological Knowledge (TEK) as contribution to the conservation of biodiversity, rare species, protected areas, ecological processes, etc. (Berkes, 1999; Sheil and Lawrence, 2004; Drew, 2005; Fraser et al., 2006; Ramstad et al., 2007) essentially related to "indigenous knowledge" (Gadgil et al., 1993). TEK has often been analyzed as opposed to modern scientific knowledge (mainly led by the western world) and as an expression of local indigenous practices, methods and approaches mainly as exclusive attribute and trait of developing countries. Nonetheless traditional knowledge has a long history in the western tradition as well based not only on Greek, Roman and Islamic foundations but also on cultures, habits and traditions of local communities deriving from other cultural experiences and histories.

One interesting issue connected to these traditions is the possibility of the return of traditional practices and methods highly related to a spatial specificity and to those links between individuals, communities and the territory where they live. These links may be placed at the base of the possibility to support forms of local development founded on local traditions: these local resources and the capabilities of local agents to identify and innovate through tradition may be combined into the development of "traditional sectors" where the term "traditional" expresses its dependence on innovative clusters of local resources and traditional heritages and expertise rather than on lack of modern technologies and innovations.

A deep knowledge of these clusters of heritages and their implications may represent the precondition to innovate and support local development in areas characterized by high "rurality" translated into a relevant incidence of local specificities and traditions (with positive contributions in the identification of some favorable preconditions in starting up new business activities and in triggering innovative initiatives) as well as the potential for their rediscovery and re-invention instead of the adoption of interventions from "above" or the realization of expensive and artificial "Silicon Valleys" or industrial districts with no links with the territory. This heritage must be prevented to be eroded because eventual destructive processes, deriving from a too much exasperated reliance and dependence only in crude technologies, may render more and more difficult the creation of forms of efficient and effective local development also because these territories will tend to progressively lose their identity for local communities.

The aim of this paper is to present some examples of generation, accumulation and implementation of practices linked to "western" local traditions, which once has been replaced by industrial standardized approaches but now capable to positively respond to

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