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Editorial

Biodiversity, our «natural capital» and essential resource to be preserved for the safeguard of the environment and our health, includes biological diversity and a wide range of living organisms in their various forms and in their respective ecosystems. These are well established definitions but their study still needs to be deepened: in fact, considering that ongoing scientific and in-depth studies require an objective comprehension which, for their importance, require the creation of new monitoring systems, as well as interdisciplinary research and development of strategic policies. Research is always attentive when it comes to the biological diversity of an ecosystem where all populations, whether they are vegetables, animal or microbial ones, do influence each other in order to reach and keep those optimal «holistic» equilibriums representing the peculiarity of a territory. Nonetheless, research is not properly supported by a coherent institutional programme and it is characterized by a complicated spiral of rules and regulations, international Treaties and Conventions: the Convention on Biological Diversity (CBD) of the United Nations, FAO's international Treaty on phytogenetic resources for feeding and agriculture (ITPGRFA), Nagoya Protocol. In Italy, the CBD and the Nagoya Protocol do have the Ministry for the Environment and Protection of the Land and Sea as the competent national contact, whereas Vegetable Genetic Resources for agricultural and food use are supervised by the Ministry for Agricultural, Food and Forestry Policies that has enacted the «National Plan on biodiversity of agricultural interest» (PNBA).

This regulatory division has created and still creates distortion on some thematic competences such as the loss of biodiversity in the livestock sector, due to the progressive replacement of local breeds with cosmopolitan ones that are more productive and suitable for industrial breeding. Even if it is a priority for the interest of our Country that the local breeds do play a role, it would not, in practice, be possible to feed the Italian population through the use of local breeds. Identify them, safeguard them and study them do however, represent cutting-edge research for identifying useful genetic variants and therefore giving value added to breeds. Studying through new technologies the current global challenges, such as the increase of products' qualities, the reduction of the environmental impact and the safeguard of the animal welfare, are some of the concrete opportunities for the preservation of biodiversity. At the same time, this would also represent a realistic perspective for enhancing and rewarding the silent and heroic engagement of the Italian breeders who are increasingly disoriented between trends, markets and regulations.

New emerging scenarios, that have already become extremely urgent, such as the biodiversity of aquatic systems, can contribute to outline the pillars of the new «Blue Growth», a perspective on which the EU is outlining, for its new programming, the need of contamination of the scientific disciplines, in a logic of continuous innovation, thus representing a fundamental contribution for a rational spread of knowledge, at the basis of new forms of economic and social development. In continuity with this, and always on the basis of scientific evidence, the various on-going connections between climate change and intensive management of natural resources have already made water essential for life and biodiversity, by identifying therefore in the ecological perspective, integrated to the valorisation of the eco-system services connected to the sustainable use of water in agriculture, the way for the maintenance of biodiversity and of natural capital, more in general, so as to get an intelligent, sustainable and inclusive growth. In this context, the innovations in the management of forests and urban green, characterized by biodiversity for improving air quality, which cause serious respiratory diseases, seem to be particularly promising. These considerations do outline new needs for knowledge, studies and interdisciplinary scientific in-depth analysis in order to contribute at the planning and resilient management of the interactions between biodiversity and society, with special reference to the value of rural and urban green and to the consequent impact on the human wellness and health. It is just on these aspects that it should be outlined the importance of the Mediterranean food profile and its capacity of fostering health through a wide range and quality of foodstuffs, in addition to an adequate

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intake of all nutrients. The alteration in the nutritional status, due to the shortage or excess in macro and micro nutrients, represents an increasingly serious problem and it may be considered as one of the main determinants of the alarming increase of chronic degenerative diseases.

All aspects, from the impact of feeding on health, to the variability in the consumption of the different foodstuffs and the diversity of who consumes foods, require scientific progress and prevention paths for promoting a rational and aware Biodiversity. In order to get an idea of its real dimension, the estimates released by UNEP 2010 (The United Nations Environment Programme) and the World Bank do point out, for Italy, that the Biodiversity and the eco-systems do provide services for a value exceeding 12% of the GDP. An indicator around which researchers, but also technical and policy makers should discuss, is the role played by the eco-system services in favour of the community, such as the safeguard of flora and fauna, maintenance of biological diversity, sustainable use of its components and the fair and equitable sharing of benefits deriving from the use of the genetic resources.

This special section of the Italian Review of Agricultural Economics hosts a selection of double peer-reviewed papers presented at the XII National Conference on Biodiversity, held in Teramo from 13 to 15 June 2018, within the thematic parallel session «biodiversity and economic impacts».

The analysis on some of the main challenges of Biodiversity opens up the monographic section of the Journal, which gathers topical scientific contributions ranging from the identification of methods for the demarcation of high-nature value areas, including an in-depth analysis about the agricultural systems of Italian regional areas, the use of environmental certification schemes as tool of optimisation in the management of the use of irrigation water as well as the use of rural development that measures the conservation of forests in Nature 2000 areas and an important case study on the environmental value of the ecosystem services related to the irrigated agriculture.

The rigorous methodological approach, which is a common element of all manuscripts, makes the applications and some of the results potentially viable to other similar territorial contexts, with the possibility of transforming scientific evidence in efficient programming and management systems for the protection and safeguard of Biodiversity that including those aspects that are less known and therefore currently neglected.

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