

INTRODUZIONE

All research is (or should be) relevant: as well known, relevance is one of the parameters through which the quality of research is measured. However, some researches are even more relevant, because they are able to respond to the needs of current times, and I think that the researches that are part of this topic are an example of this. I also think that this is one of the reasons why the topic was selected, as the Director of Centro Einaudi, Giuseppe Russo, confirmed. The opening speech then wants to be a general reflection on the relevance of the topic and, in particular, an analysis of the evolution of how the relevance of the topic was perceived according to the dominant paradigm of economic development.

For those who studied Development Economics this is probably quite familiar. The rise of Development Economics occurred after the end of the Second World War. In the 1950s and 1960s the dominant paradigm of economic development mainly relies on the rationale to push countries towards industrialization, which in turn would lead to economic growth; after an initial increase in income inequalities, the benefits of economic growth would then spill over and trickle down to the whole population (Kuznets 1955). In this framework, how was conceived the role of rural economies and, in particular, of the agricultural sector?

We can individuate four main contributions that scholars saw for rural economies at that time, when the focus was merely on industrialization and economic growth (Johnston and Mellor 1961; Kuznets 1964). First, *product contribution*, that means that rural economies were considered as food providers for an expanding population. Second, *factor contribution*, since rural economies and rural areas were considered as a pool of workers who in the rural sector had zero (or very close to zero) productivity and who should be pushed to move to the industrial sector, where they would have a higher productivity at a constant wage. This was indeed the main rationale of the Lewis model (Lewis 1954). Third, *market contribution*, where rural economies were seen as potential markets for industrial output. Finally, exchange contribution, especially for developing countries, where the role for rural economies was to export primary goods in order to get the foreign currency necessary to import capital goods to be used in the industrialization process.

Of course, these four contributions were the reflection of the dominant paradigm at that time, related to the way in which economic development was conceived. Even if the early theories of industrialization were proposed in 1950s and 1960s, the related view of rural economies and of their role persisted at least until the 1980s. There were exceptions, of course, especially in the 1970s, then broken by the emergence of the Washington Consensus in the 1980s; in general, however, until the 1980s that was the role attributed to rural economies.

At a certain point, however, an important change in the paradigm of development occurred: from the 1990s the idea of development moved from a strictly economic conception to the idea

of human development first and of sustainable development then. We can individuate three main milestones in the institutionalization of these new paradigms. First, in 1990, the publication of the *Human Development Index*, that encompasses not only the economic dimension, but also dimensions related to human development, like health and education. Then, in 2000, the launch of the *Millennium Development Goals* (MDGs) by the UN, that are 8 goals related to a multidimensional view of development. Finally, in 2015, the definition of the *Sustainable Development Goals* (SDGs). They consist in 17 different goals to be achieved by 2030, that encompass a series of global challenges like poverty, inequality, health, education, environmental protection, peace and justice. By looking at them, it is quite clear that the role of rural economies that in previous decades economists individuated for the agricultural sector was extremely limited. In front of these new paradigms of sustainable development, what rural economies can do to promote sustainable development is indeed much more than the four contributions previously described.

Which are the main contributions that rural economies can provide to sustainable development? There are lots of contributions, but here I want to focus especially on two of them.

One is the so called *pro-poor growth*. The SDG 1 aims at ending poverty in all its forms everywhere and, even if it's an ambitious goal, rural areas have a lot to say about that. There have been a lot of studies estimating the elasticity of poverty to economic growth by sector, a concept that indicates how much poverty decreases when there is an increase in GDP per-capita (or in productivity) and how it differs across sectors. Using different types of estimation techniques, samples and data, all these studies demonstrated that the elasticity of poverty to economic growth is much higher when economic growth occurs in the agricultural sector rather than in the other two sectors of economic activity. A study published in 2018 in a special issue of the Journal «World Development» (Ivanic and Martin 2018) estimated the poverty change from a sectoral productivity increase equal to 1% of GDP at different levels of GDP per capita. The results of this study show that the elasticity of poverty to the increase in sectoral productivity is more than double when the increase in productivity occurs in the agricultural sector rather than in the other two sectors of activity. This gap narrows when the per capita GDP increases, so results are particularly meaningful for low income countries. The reason of this is clear when we look at the statistics about the concentration of the poor in rural areas: the 88% of the extremely poor live in rural areas; moreover, while the world population employed in the agricultural sector is on average 27%, in low-income countries this percentage increases to 70%.

There is also another reason why I do believe that rural economies can play an important role in sustainable development, that is because they are the *bulk of food production*. Of course, rural economies consist of both farm and off-farm activities, but the former represent the largest share. Food production can have a huge impact both on the environment and on society. Regarding the food-environment nexus, there is a bidirectional link: on the one hand food production impacts on the environment and, on the other hand, the protection of the environment is fundamental in order to guarantee the survival of rural economies as food providers. At the same time, food production can have a great impact on society, because food security and an equitable access to food can contribute to a healthy, inclusive and sustainable society. Again, we have a crucial role for rural economies in sustainable development.

However, we are facing a series of emerging trends that can undermine not only rural economies, but also sustainable development itself and their common destiny. This doesn't want to be a complete list but, just to give you an idea, I will report a series of trends that in my opinion are significant, as pointed out by a FAO report in 2017 (FAO 2017).

The first has to do with the current demographic trends. As well known, the world population is expected to reach 10 billions people by 2050. However, this rapid increase is not the only change that we have to expect, because this growing population on average will be richer than in the past, since there is also an upward trend in per-capita GDP. At the same time, this population will be more urbanized than in the past, so we have to expect an increase in food demand but also a qualitative change. In other words, we have to expect a higher food demand, but also a different composition of that demand. Before going to the implications of this trend, I also want to give you some data about the demographic trends in rural areas, because if worldwide the world population is increasing, in rural areas we are observing an opposite trend. Until 35 years ago the percentage of people living in rural areas was equal to 60%, while today this percentage is 46%. By 2050 it will further drop, with the percentage of people who will live in urban areas representing the  $\frac{2}{3}$  of the world population. This means that, in front of a general increase of the world population, the rural population will decrease of almost twenty hundred millions by 2050 (FAO 2017).

How these demographic trends will impact on food markets? On the other hand, we have to expect an increase in the demand for food. It has been estimated that, in a scenario of modest economic growth, the demand of agricultural products will increase by around 50% from now to 2050. At the same time, as discussed, we will probably face a decrease in the share and in the absolute number of people living in rural areas and employed in agriculture. Some optimistic economists would say that this is not a problem, because the solution can be provided by technological improvements that allow productivity gains. However, if we look at the other trends that are emerging, we can see that actually agricultural productivity is lowering, because the more natural resources are used, the less they are productive. We are indeed in front of the degradation of natural resources and the loss of biodiversity, further exacerbated by the diffusion of transboundary pests and diseases. The Asian green bugs that in these days you can see also in Turin and that are undermining our plantations are an example of this.

Another emerging trend has to do with climate change, which is affecting crops and rural livelihoods. Not only climate change is undermining rural areas and agriculture, but also agriculture is highly contributing to climate change. It is estimated by FAO that the contribution of the agricultural sector to greenhouse gas emissions is equal to 20-24% and half of these emissions comes from animal production. If you match this information with the emergence of an increasing and richer global population and with the subsequent shift towards a different type of food, like protein food, it is quite clear that the contribution of agriculture and rural economies to greenhouse gas emissions will further increase in the future.

In conclusion, we can say that rural economies and sustainable development are linked by a common destiny. The presented scenario makes clear that we must look at rural economies not only from the perspective of traditional Economics and the first contributions that

we discussed at the beginning: this is not because they were wrong, but because they were totally incomplete. In this new scenario, the contribution of rural economies to sustainable development is of course much richer than represented in those four contributions.

We can individuate some ‘hot topic’ in this common destiny between rural economies and sustainable development. Each of the three awarded papers focuses on one of them. One ‘hot topic’ is *resilience*, specifically the resilience of rural communities to changes, and it is addressed by the paper presented by Federico Fantechi, who studied the community disaster resilience in rural areas taking the case of Central Italy after the 1997 earthquake. Then we have, as a ‘hot topic’, *risk-coping and risk-sharing*, which is studied by Georgios Manalis, who presents a model of risk-sharing and land reforms applied to rural West Africa. Finally, another ‘hot topic’ is *innovation* and, specifically, social innovation in food systems: Stefano Menegat presents a paper that considers U.S. farmers’ markets as an example of social innovation and tries to understand what is the future of these kinds of markets.

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