STUDI E RICERCHE IN AGRICOLTURA,
AMBIENTE E TERRITORIO

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AMBIENTE E TERRITORIO

La collana, diretta dal Dipartimento di Scienze agro–ambientali e territoriali dell'Università degli Studi di Bari "Aldo Moro", accoglie studi e ricerche che riguardano le Scienze agrarie, con particolare riferimento alla definizione di sistemi e di soluzioni innovative per una gestione sostenibile dell'agroambiente e, più in generale, del territorio rurale e delle sue risorse. La collana è rivolta a tutti coloro che vogliono approfondire gli aspetti multidisciplinari ed interdisciplinari delle Scienze agrarie, con l'obiettivo di coniugare esigenze di sviluppo economico, sociale, di tutela dell'ambiente e delle produzioni alimentari. Pianificazione e gestione sostenibile dei sistemi agroalimentari, forestali e zootecnici negli areali mediterranei rappresentano il peculiare ambito scientifico della collana, sia a livello di ricerca che a livello didattico.

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Andrea Pardini
Furio Massolino

Urban agriculture as part of food security and community resilience

Aracne editrice

www.aracneeditrice.it
info@aracneeditrice.it

www.gioacchinoonoratieditore.it
info@gioacchinoonoratieditore.it

via Vittorio Veneto, 20
00020 Canterano (RM)
(06) 45551463

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Introduction

In 1950, 70% of the inhabitants of the planet still lived in rural areas, since then the rate of urbanization has increased: in 2012 the inhabitants of towns have reached those of rural areas, and they overtook in 2014 with 54% of the world population already urbanized.
It is estimated that in 2020 up to 55% of people will be concentrated in towns, with about 972 million urban inhabitants in the developed Countries and over 3 billion in the towns of the developing Countries, the percentage of urbanized people will grow to 66% in 2050 (Satterthwaite *et al.*, 2010; UN, 2014; 2018).

The urban environment is very complex and varies from highly technological metropolises with good infrastructure, to large or small very poor towns. In all cases there are various interactions of services, social classes, cultural and ethnic groups. Precisely because of this complexity, it is believed that in a near future, cities and their suburbs will be the areas where riots and conflicts will most likely emerge, above all where there is poverty and inadequacy of housing and infrastructure. The predictable social instability is so accentuated that it has already suggested military strategies aimed at controlling large cities (NATO, 2003).

In the towns of the developing Countries, the main causes of tension and conflict will be the lack of work, services, primary resources such as water and food. When the overall economic conditions worsen, the deficiency and irregular distribution of livelihoods can become the main cause of tension and also an important cause of the spread of diseases.

Nonetheless of the increasing population in towns, currently around 2.5 billion people in the world live on agriculture and related activities (FAO, 2013), agriculture remains the most important economic activity in developing Countries. Despite the existence of so many farmers, at least 1 billion people have insufficient nutritional level, curiously at least 600 million of these are farmers in climatically difficult areas and poorly fertile lands. These marginal farmers have not much access to knowledge, technology and capital to change their conditions, they live in self-sufficiency by allocating the entire product of their labor to mere survival largely through traditional exchanges.

Chapter I

Causes of urbanization

About 1.4 billion people live nowadays on less than 1 euro per day (IFAD, 2011) and most of them live in rural areas and urban peripheries. For this population, several large modern and efficient agricultural projects can be proposed but will never be implemented due to the lack of initial capital and credible perspectives of improvement. The lack of basic livelihoods including water and food, pushes these people to migrate to large towns that unfortunately do not have the resources to receive them properly.

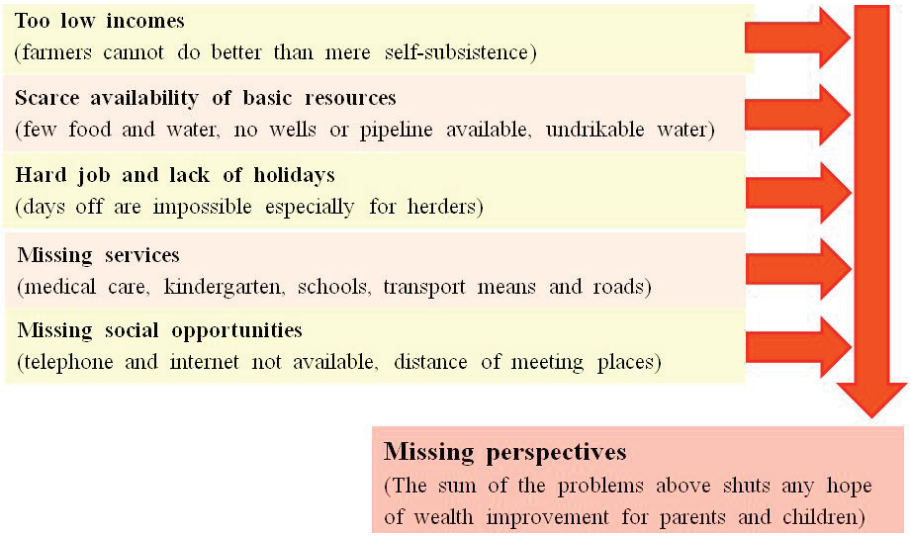
The causes of the growing urbanization can be classified in exceptional (outbreaking reasons) and ordinary (gradual social changes).

Exceptional causes (outbreaking) include unpredictable and difficult happenings that burst abruptly like wars, civil wars and epidemics. These events determine the very rapid and almost definitive worsening of the standard of living: the destruction of work tools including fields and pastures that are mined, destruction of tools, death and robberies of flocks and herds, permanent loss of work force.

Ordinary causes (gradual) include anything related to the search for a better quality of life. If we exclude particular events, the population is mainly urbanized due to the inadequacy of rural life (table 1.1), so we can certainly say that the battle for urbanization control should be played in rural areas with agricultural development interventions accessible to the many poors.

As a matter of fact farmers migrating to towns are farmers or herders of marginal areas where development possibilities are little. Their common strategy for migration consists in the initial displacement of the men or the older sons, who temporarily lean on relatives or friends who have already migrated to the town and there established; these avant-gardes settle in towns and later are followed by the family. These people arrive in towns with just little money, having only a network of friendships and kinships. Once established, a new urbanized family must devote most of the income to get water, food and fuel wood, for example, urbanized families in Kenya spend up to 40-50% in these two items and a similar percentage can be estimated for all developing Countries (FAO, 2001; IDRC / UN-HABITAT, 2003).

Table 1.1. Main causes of land abandonment (from: Pardini *et al.*, 2002, updated).



Regardless of the actual causes of urbanization, which can vary considerably from Country to Country and from place to place, a variety of diversified situations persist globally and they all push towards changes in habits.

Over time, the increasing availability of transport, electricity and refrigerators will change the type of food demand (Reardon *et al.*, 2003). This could favor large intensive farms that prefer to bring large quantities of products at once rather than frequent small amounts.

At the same time, large and very populated urban areas will remain with little access to modernity (Legros *et al.*, 2009), their inhabitants will change slowly the traditional social organization and will keep traditional diets buying daily foods and items in local markets supplied by small producers within small distances from the town (figure 1.1).

Small traditional farmers that base their agriculture on low-cost labor rather than on advanced and expensive technologies, will have increasing difficulty in producing the quantities of food necessary for the large urban population, at the same time the slow economic development will slow down the spread of large food chains (Weatherspoon and Reardon, 2003). It is therefore highly probable that periods of increasing difficulty may arise in water and food supply. Governments and local administrations should actually plan how to involve urban families in the micro-production of food and in water conservation, also the peripheries of towns can be better integrated in agricultural production des-

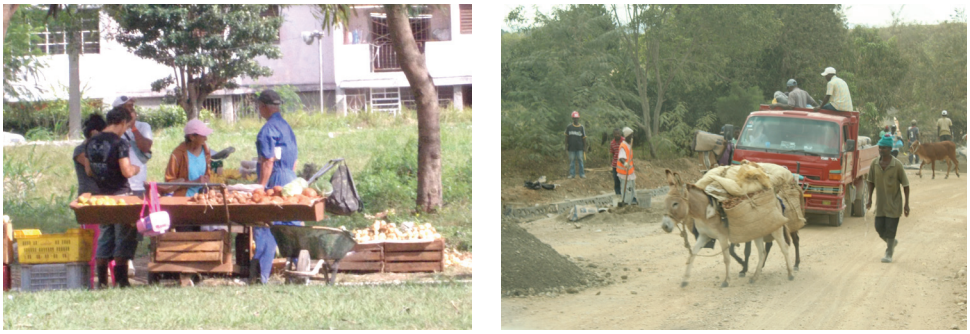


Figure 1.1. Little local markets (left), supplied more or less daily and with many difficulties (right) are the most common source of food stocks in many towns of developing Countries.

tined to local market. An excellent example in this sense is given in Brazil by the Secretariado pela Nutrição e Segurança Alimentar (SMASAN, Secretariat for Nutrition and Food Security) which issued laws to support food programs that include economic, legal and technical assistance for urban and peri-urban food production (FAO, 2015).