Agriculture, food and economic development

Is penalizing food and agriculture a sustainable development option?

Agriculture is often presented as a backward sector where operators lack professionalism, characterized by poverty and undernourishment, particularly in the so-called developing countries. This situation is frequently seen as inevitable, an apparently unsolvable issue that, in the facts, could not be resolved, despite innumerable statements, commitments and programmes.

In reality, this is in no way inevitable. It is the consequence of decades of economic policies designed at the expense of the agriculture sector (low agricultural prices, lack [read] or inappropriateness [read] of the support it benefited) and in favour of the development of industries and services. As the origin of all wealth according to the physiocrats, agriculture has indeed historically been the source of surplus of raw material, labour and finance that made economic development and diversification possible.

These policies have made of rural areas an often-forsaken world where, depending on circumstances, poverty and indebtedness are the rule, and practices unsustainable [read in the case of France]. The source of wealth dear to the physiocrats has become synonymous of backwardness, poverty and hunger, and the food sector as a whole is being penalized, its workers being underpaid and mistreated.

The role of agriculture in overall economic development and poverty reduction

For decades, researchers and international organizations have claimed that agriculture was - in the words of an OECD report - an “especially potent force for poverty alleviation”. In retrospect, the OECD found that this was truer for poorer “developing countries”, while in contrast, in “relatively well off developing countries”, non-agricultural growth was slightly more effective [read]. Other authors stressed that agriculture was more successful in reducing poverty when it was smallholder-led by rather than centred on large-scale estates [read].

Such findings, often based on the fact that unsatisfactory performance in poverty eradication was frequently correlated with low public spending in agriculture [read] somewhat generated the view that for “less-advanced” countries, agriculture (together with remittances from international migration) was the best solution for reducing poverty, while the development of sectors other than agriculture was more adapted for “relatively well-off” countries. This view has guided global thinking and regional as well as national strategies and policies for some time.

More recently, the potential for poverty reduction residing in the “‘hidden middle” of food value chains (in storage, logistics, transportation, and wholesale and retail distribution) was touted. It was to turn into reality, provided these chains were inclusive by allowing “poor and vulnerable groups to engage in food system activities and earn a fair share in the value added[1] generated” by them. This approach required, among other things, that efforts be made to create needed infrastructure and skills, secure land tenure, facilitate the organization of smallholders within associations or cooperatives, and implement social protection programmes for making households able to cope with economic shocks [read]. It also implied ensuring that contractual arrangements between purchasers and individual or groups of farmers were fair by rule and designed to secure a balanced share for producers of the income generated by value chains. Unfortunately, most of these prerequisites were not respected, and power in food systems was increasingly concentrated in a few hands, particularly the capacity to exclude the poorer and weaker producers [read].

With hindsight and despite these nuances, it appears clearly that for ever, the role of agriculture in economic development and poverty alleviation in the dominant conventional view of economic development, has been one of providing cheap food, energy and raw material for non-food use; labour force for sectors other than agriculture; and, savings (including foreign currency) to be invested in for the development of non-agricultural sectors.

This view reflects the historical pattern of what occurred before 1900 in Western Europe, particularly in Great Britain. In that specific case, however, it is essential to note that much of the huge agricultural surplus that helped trigger the 19th-century industrial revolution largely originated in the form of cheap cotton from India and from colonies established in the Americas whose economy was predominantly based on slavery [read].

[1] The value added is the difference between the selling price of a product minus the cost of materials and components (intermediate inputs) bought. This value added is distributed among workers (salaries), investment and shareholders (profits), financial and insurance costs and the state (net taxes minus subsidies).

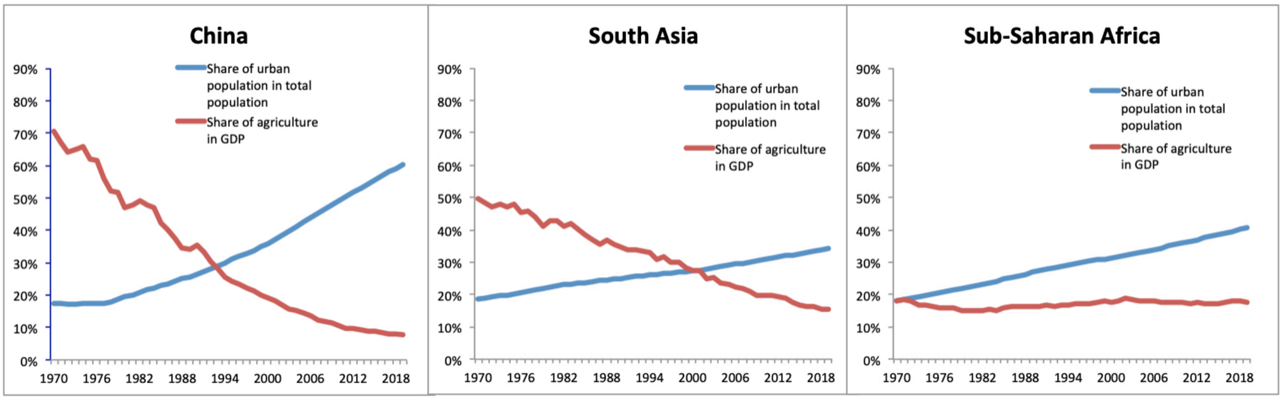
History does not repeat itself

This development model largely inspired strategies adopted the newly independent countries in the 1960s and 1970s, and the priority given to industrialization. They failed miserably in most cases, mainly because history does not repeat itself and the conditions they met were fundamentally different from those experienced in the past. Indeed, these newly independent countries were not in a dominant position and had to compete with well established, powerful and more efficient industries (and agricultural sectors) from rich countries. In addition, rich countries, imposed tariff escalation measures that penalized (and often still penalize now) imports of processed goods from their trade partners. Moreover, they can no more resort to climate- and environment-unfriendly technologies that were used in the past and were based on the availability abundant and cheap energy.

As a consequence, the industrial model was dropped and replaced by a series of successive alternatives that gave priority to rural development, basic needs, economic liberalization and privatization - generally driven by rich countries and international financial organizations [read]-. whose claimed objectives, year after year until today, remained unchanged: reduction or eradication of both poverty and food insecurity. Unfortunately and for good reasons, these lip-service alternative strategies did not yield expected results, particularly in sub-Saharan Africa and in South Asia.

The goal of structural transformation of the economy that had been pursued in the initial industrialization strategy however progressively took place at different paces and in varied ways, depending on countries and regions (see Fig.1).

Fig. 1: Structural transformation in selected regions and countries over the last four decades



Source: elaborated on the basis of FAOSTAT and UNDESA data.

For example, in China and South Asia, population became increasingly urban, and agriculture saw its share in the economy fall, as industries and services grew, supported by foreign investors attracted by an abundant, docile, qualified and underpaid labour force [read].

This structural change came about at a record speed in China, and at a slower pace in South Asia where more than 60% of the population remains rural, living often in urban-like rural areas where poverty and food insecurity is widespread [read].

In Africa, urbanization occurred at a rate comparable to that in South Asia, but the share of agriculture in the economy did not fall much below 20%, denoting a slow growth of non-agricultural activities that, in theory, were to absorb “excess” labourers living in rural areas. So-called hidden cities that escape statistics appeared, and urbanization took place without industrialization, generating "rurban" pockets of poverty [read]. The low speed of transformation is in part linked to the lack of attractiveness of these places for investments, particularly foreign [read], itself a consequence of policies and of the institutional environment created by their authorities.

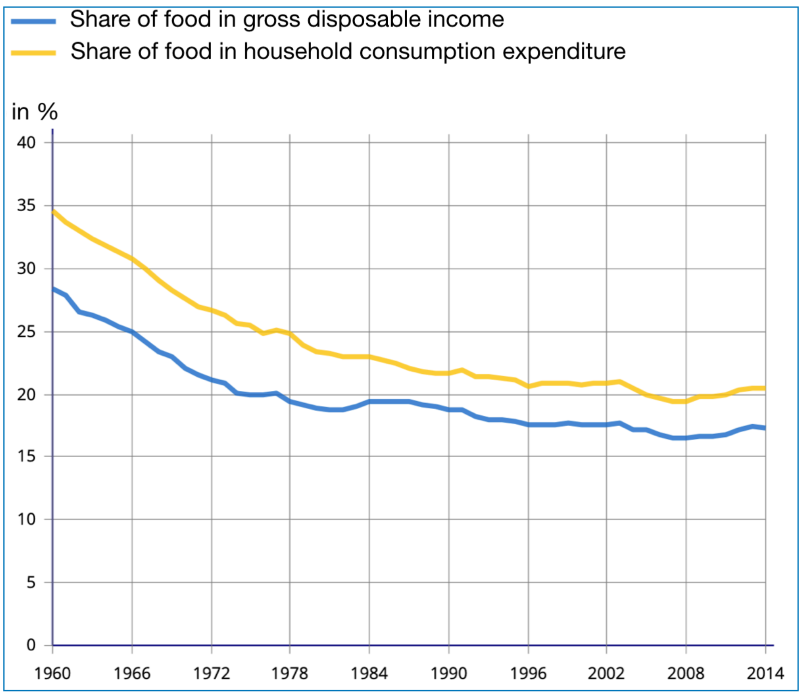
With hindsight, facts support the thesis that agricultural development is required for economic development to take place (a prerequisite in low- and middle-income countries for poverty and food insecurity reduction). When it occurs, conditions are there for agriculture to generate surplus for reinvestment in the economy, raw material for industries, labour and, considering the manner in which agriculture has developed, to offer a market for industrial products (agrochemicals and other goods, machinery, infrastructure and services).

This process is necessary, but it is not sufficient, if other conditions (already listed here above on page 2) prevent non-agricultural sectors from developing, as is the case of much of Africa, and to a lesser extent of South Asia. Moreover, the way agriculture develops matters, as experience shows that it may not be sustainable if it contributes to degrade natural resources (land, water, biodiversity, forests and climate) and if it underpays its labour force.

Agriculture: a sector penalized almost everywhere in the world

For agriculture to be in a position to play the role in development that has just been described, there was a need for a mechanism to extract from it a surplus that can be invested in non-agricultural activities. This mechanism is the **cheap food policy** that has been prevailing worldwide for decades (and more than 150 years in Western Europe).

Fig. 2: Evolution of the share of food in household consumption (France, 1960-2014)



Source: INSEE

This cheap food policy requires to maintain agricultural prices low [read] and implies a below average individual income of those working in food and agriculture systems. It also allows keeping wages low in all sectors (agriculture included) without affecting excessively nutrition and health of workers while reducing the part of food in household budgets (Fig,2). This, in turn, helps to sustain economic growth[2] and preserve competitiveness with respect to other countries, while securing a good level of profit for private business [read p.8-10].

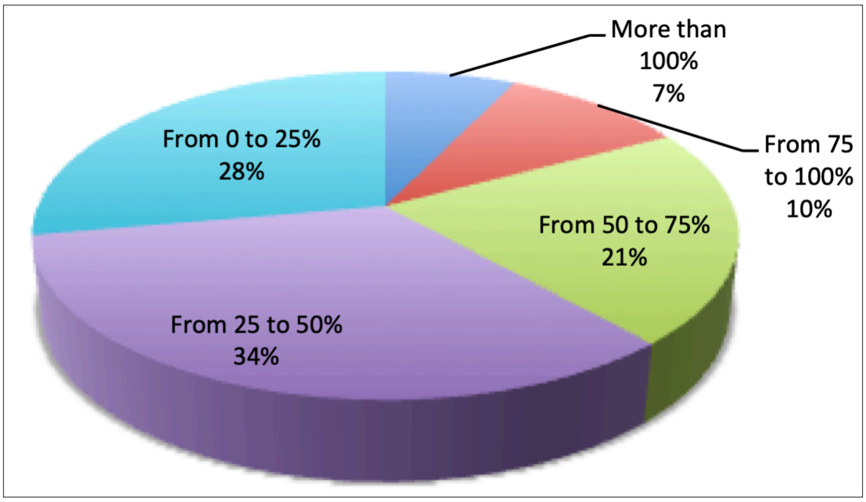
The bias against those working in the food and agriculture sector can be approximated by considering the ratio between the amount of value added per worker in this sector and the average value added per worker in the economy as a whole.

$$\textbf{ratio} = \frac{\text{average value added per worker in agriculture}}{\text{average value added per worker in the whole of the economy}}$$

A country by country analysis of available data suggests that in a vast majority of countries, this ratio is far below 1, denoting a lower average value added per worker in agriculture than in the economy as whole (Fig.3). This is a consequence of food prices being undervalued [read] and of lower productivity resulting from the characteristics of investment in agriculture [read]; it is a cause for low wages paid in the agriculture sector.

Given this situation, it is therefore not surprising that a significant share of agricultural labour in rich countries is made of underpaid and mistreated migrants [read], and that, more generally, poverty and food insecurity are particularly widespread in rural areas and among the agricultural population.

Fig.3 Distribution of countries according to the ratio between the amount of value added per worker in agriculture and the average value added per worker in the economy as a whole (2017)



Source: elaborated from World Bank and OECD data

Among the 169 countries for which this ratio could be computed, 104 (62% of countries in which 2.8 billion people or 70% of the world rural population live) have a ratio of less

[2] It has been established, historically, how important food is for labour productivity and economic growth [read]

than 50%, meaning that GDP per worker in agriculture was less than half of what it was in the economy as a whole, and only 7% of countries (12 countries with 29 million rural dwellers) had a GDP per worker in agriculture greater than the average GDP per worker in their economy.

From a regional perspective, in **Europe**, where in all countries, agriculture weighs less than 20% of GDP, value added per agricultural worker is only comparable to average value added per worker in the economy in a few countries for which data is available. The ratio is 84% for the Netherlands, just above 60% for Spain and Germany, 59% for the UK, and only 54% and 50% respectively in France and in Italy, despite the very massive subsidies received by agriculture in the framework of the EU Common Agricultural Policy and a very high productivity. This low ratio demonstrates that low prices prevailing in Europe - and particularly in the EU - are far from reflecting the real cost of products and do not allow agricultural sector workers to benefit from an income comparable to that of other workers, while this had been an explicit objective of the Common Agricultural Policy of the EU at the time of its establishment.

In **Africa**, Sierra Leone, Kenya and Algeria are among the best performers (ratio greater than 90%), while Zimbabwe, Gabon, Congo, Angola, DRC and Cameroon have a ratio at around 20% or below.

In **Asia**, China, Indonesia, The Philippines and India have a ratio of around 40%, while it is only approximately 25% only for Bhutan, Laos and Thailand. Best performers are Cambodia and Malaysia.

In the **Middle East**, where agriculture weighs less than 10% in the economy, value added per worker in agriculture is above the average in the economy in the United Arab Emirates, Jordan and Israel, while Yemen, Iraq, Kuwait and Qatar are among the countries where the ratio is below 20%, meaning that the value added per worker in agriculture is less than one fifth of the average value added per worker in the economy as a whole.

In **America**, where in most countries, agriculture is well below 20% of GDP, the ratio is between 20% and 30% in Mexico, Cuba and Peru, and between 40 and 50% in Colombia, Chile and Brazil. In the US, it is 57%,

The diagrams showing the distribution of the countries of these regions can be found in annexe.

In the case of the **US**, data produced by the Department of Agriculture signal that it is not just agriculture that is penalized, but the food sector in general where, apart from food industries, value added per worker is far below what it is in the economy as whole (Table 1).

Table 1: Value added per job in the food sector compared to the economy in general (US, 2020).

	Value added (USD billion)	Jobs (millions)	Value added/job (USD '000)	Ratio: value added/job in sector compared to the economy as a whole
Farming	136	2.6	52	50
Food services, eating and drinking places	544	13	42	40
Food, beverage and tobacco manufacturing	272	2	136	130
Food and beverage stores	136	3.2	43	41
Total US economy	21,327	203.7	105	100

Source: based on ERS/USDA data

With the development of digitalization [read], one could have expected that with improved flow of information on markets, new possibilities for shortening market circuits and reducing intermediaries, leading to greater efficiency and higher farmer incomes. Unfortunately, digitalization also means a stricter control by buyers over producers and a greater risk for some producers who do not fully respect product specifications imposed by the buyer, of being excluded from the market and see their production rejected and their economic conditions worsened [read].

Recent developments (2007-08 food security crisis, the COVID-19 pandemic, and possibly a growing awareness of negative externalities created by food systems) have reversed the historical downward trend in food prices, and this movement is likely continue as natural resources degradation and climate change impact on productivity of agriculture, challenging the continuation of the transfer mechanism from agriculture to the rest of the economy. Such an evolution could considerably improve the economic, social and environment sustainability of the food sector.

Conclusion

The main ideas can be extracted from what has just been read are summarized below in four points:

- Historically, agriculture has played a critical role in overall economic development. By producing a surplus that could be invested in non-agricultural activities, it has helped countries to diversify their economy. This process has been quite effective in the past and has led to emergence of rich countries, because of especially favourable conditions: access to markets, cheap energy and raw materials, competition with less efficient economies, and power imbalances.
- Today, this approach cannot be replicated any more in the case of poor countries. They have difficulties in finding markets for processed goods (because of tariff escalation measures), face strong competitors and cannot resort any more to climate- and environment-unfriendly technologies that were used in the past and were based on the

availability abundant and cheap energy. This hampers the structural transformation of their economy and reduces (increasingly reverses) the trend towards less poverty and food insecurity.

- The cheap food policy that has been the recipe for extracting surplus from agriculture has implied below average income for those working in the food and agriculture sector (with implications on the prevalence of poverty and food insecurity). It has also been an obstacle in internalizing the cost of negative externalities created by food systems (particularly natural resources degradation and climate change), in improving social conditions in rural areas and in cutting food wastage [read].
- Recent events and the growing awareness of negative externalities created by food systems have reversed the historical downward trend in food prices. If this movement continues the resource transfer mechanism from agriculture to the rest of the economy would be challenged. This would then considerably improve the economic, social and environment sustainability of the food sector.

Penalizing the food and agriculture sector is a risky option that cannot be continued in the future without generating disastrous consequences that undermine overall sustainability of our societies, as it is a source of major social ills, of poverty, of food insecurity and of environmental degradation.

Materne Maetz
(August 2022)

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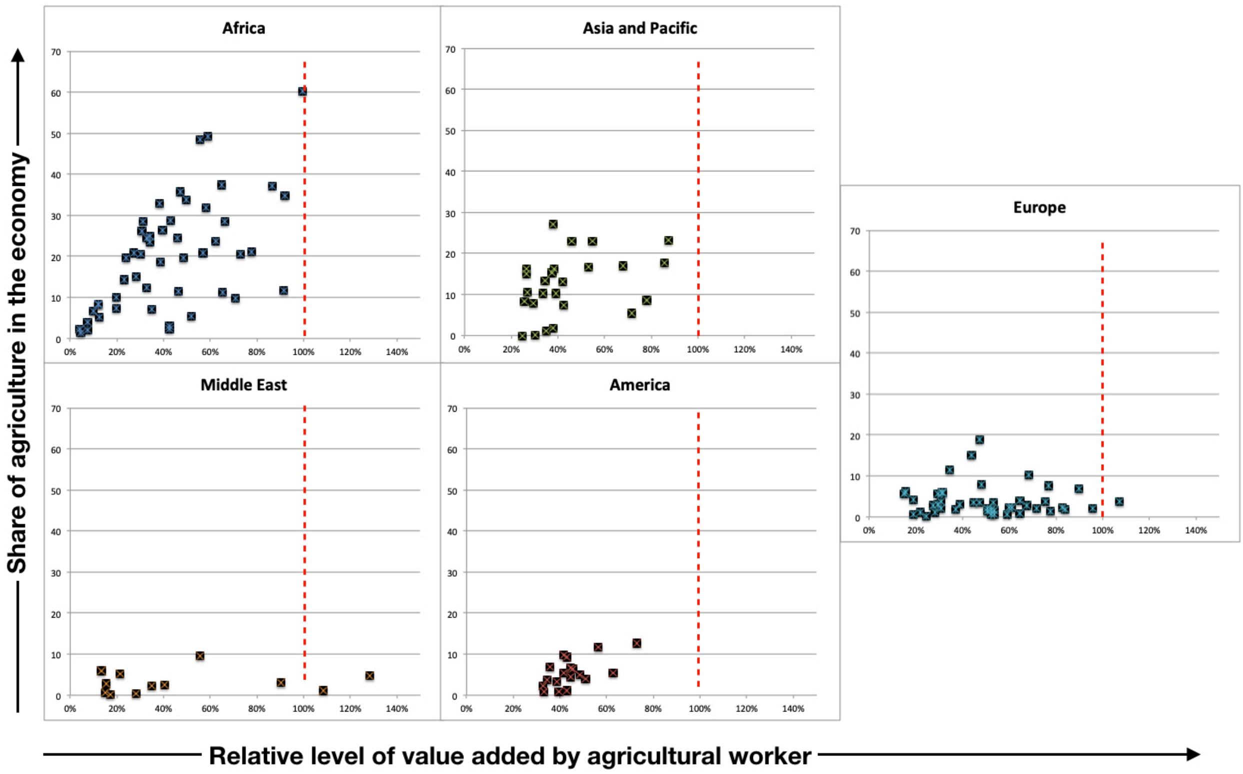
Annexe: Distribution of countries according to the relative level of value added per agricultural worker and the share of agriculture in the economy in different regions (2017)



Source: elaborated from World Bank and OECD data

To know more:

- UNDESA, World Social Report 2021 - Reconsidering Rural Development, United Nations Department of Economic and Social Affairs, 2021.
- Prause, L., Hackfort, S. and Lindgren, M., Digitalization and the third food regime, Agric Hum Values 38, 641–655, 2021.
- Vos, R., and A.CATTANEO, Poverty reduction through the development of inclusive food value chains, Journal of Integrative Agriculture, Volume 20, Issue 4, 2021.
- Fan, S., and E. E. Cho, Paths out of poverty: International experience, Journal of Integrative Agriculture, Volume 20, Issue 4, 2021.
- Dorosh, P., and James Thurlow, Beyond Agriculture Versus Non-Agriculture: Decomposing Sectoral Growth–Poverty Linkages in Five African Countries, World Development, Volume 109, 2018.
- Harley, K**.,** Slavery, the British Atlantic Economy and the Industrial Revolution. University of Oxford, Discussion Papers in Economic and Social History No. 113. Oxford, UK, University of Oxford, 2013.
- Dewbre, J., D. Cervantes-Godoy and S. Sorescu, Agricultural Progress and Poverty Reduction : Synthesis Report, OECD Food, Agriculture and Fisheries Papers, n° 49, Éditions OCDE, Paris, 2011.
- Anríquez, G, and K. Stamoulis, Rural development and poverty reduction: is agriculture still the key? ESA Working Paper 07-02, FAO, 2007.
- Mellor, J., Comparative experience of agricultural development in developing countries since World War II, The Indian Society of Agricultural Economics, 1971.

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