

Food Security and the Role of the EU

by Paolo Borghi

Abstract: La sicurezza alimentare e il ruolo dell'UE - Since the very beginning of the European Economic Community (progenitor of the current European Union) the Treaty of Rome, at its Article 39, has expressly constitutionalized food security as one of the aims and objectives of its Common Agricultural Policy. Still today, Article 39 of the Treaty on the Functioning of the European Union (TFEU) requires EU institutions to assure the availability of food supplies even by increasing agricultural productivity – if necessary – and by ensuring a “rational development” of the agricultural sector as a whole (whereas the legal concept of “rational development” seems open to be as well read as “sustainable development”). This legal basis has led Europe to play, in the geopolitical framework, a strategical role which seems to have been to some extent abdicated during the last three decades.

In most recent years (particularly at the beginning of the current decade), Europe is experiencing brand new challenges: on the one hand, the unexpected reappearance of global food emergencies which most countries, most scholars and most observers had too quickly considered substantially overcome (at least in the EU area and – more generally – in the western part of the world): emergencies that, in a framework of post-pandemic and war upheavals, perhaps call for more flexibility about the decoupled approach of the agricultural aids system; on the other hand, a need (and a clear political choice) for rethinking CAP in terms of more (environmental and climate) sustainability.

In this context, Europe plays a central role in both directions (guarantee of food availability but also of food chain sustainability), which often seem to diverge.

Its more recent CAP reform (covering the period 2023-2027) reveals a very little degree of novelty, as regards its general approach, compared with the overall setting of former 2014-2021 CAP, while the recent launch of EU's climate change strategy ('Green Deal'), strictly connected to the s.c. 'Farm-to-fork Strategy', implies a constant reduction of environmental impact (and perhaps an extensification of agricultural production). The keywords to combine these two orientations could be 'R&D' and 'innovation', but EU's legal environment sometimes seems all but favourable.

Keywords: *Food security, European Union, Common Agricultural Policy, sustainability, innovation*

1. Food security: a “constitutionalized” objective

No doubt: unlike the majority of the Member States' constitutions (and, more generally, unlike the majority of world countries) ¹, the right to food

¹ See L. KNUTH - M. VIDAR, *Constitutional and Legal Protection of the Right to Food around the World*, FAO, Rome, 2011. For an Italian perspective, see M. BOTTIGLIERI, *The protection of the Right to adequate food in the Italian Constitution*, at

is expressly constitutionalized in the EU law. Since the original text of the Treaty of Rome, Article 39 establishes among the objectives of the common agricultural policy:

- to increase agricultural productivity by ensuring the rational development of agricultural production;
- to assure the availability of supplies.

Right from the start, «increasing the agricultural productivity» directly meant (just as it still means, right now) increasing the ability of the agricultural sector to effectively respond

(i) to the needs which were clearly expressed by the historical context where this legal principle was born:

(a) Europe as a whole was a net importer of foods, commodities and raw materials;

(b) the internal production wasn't able to satisfy the food demand of early EEC population as such;

(ii) to the food needs that were easily predictable in 1958 for the following years: in the rising EEC there was a clear trend to a very significant population growth, so that no particular expertise was needed to forecast an imminent significant increase also in food demand.

If these were (and are) the aims to be reached (or, at least, to be pursued), the prescription of «ensuring the rational development of agricultural production» is the way of correctly interpreting and implementing the above mentioned «increase of agricultural productivity».

Perhaps, today we would prefer other adjectives than “rational”: maybe in 2022 we would rather say “sustainable”. But the basic concept, anyway, is that the economic development of the agricultural sector, which was desired and expected, had since then to be sought in line with the current and future availability of economic and natural resources. And had also to be proportional with the market balance: it doesn't seem that the Authors of the Treaty of Rome were thinking about the creation of a production surplus as a good thing.

So, the express provision contained in this Treaty (and today as well, in the TFEU) of the objective «to assure the availability of supplies» sounds like a confirmation: the aims of the Common Agricultural Policy (CAP) include a rational development and increase of the agricultural productivity, just because the European food system needed (and still needs) an adequate availability of food. And, in the current era, where the food industry is a strategic sector of the overall economic system, also the industry needs availability of supplies (of raw materials).

Not by chance, paragraph 2 of the same Article 39 states that «In working out the common agricultural policy ... account shall be taken of: ...

(c) the fact that in the Member States agriculture constitutes a sector closely linked with the economy as a whole».

2. Food security, right to food and accessibility

Still, it's not only a matter of *objective* availability of food. There's also a problem of *subjective* access to it.

Just to search a basis in the international law ², let's note that the International Covenant on Economic, Social and Cultural Rights of 1966, at article 11, reminds us

- that no food security can be granted without food accessibility. And that accessible necessarily means also "affordable";

- that «The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food», also «recognizing the fundamental right of everyone to be free from hunger»; and

- that, finally, among the main tools to reach these goals there are

a) the improvement of the methods of production, conservation and distribution of food;

b) the full use of technical and scientific knowledge;

c) the dissemination of knowledge of the principles of nutrition;

d) the development or the reform of agrarian systems in such a way as to achieve the most efficient development and utilization of natural resources.

In explaining the Covenant, the UN – FAO clarifies that «Food must be available, accessible and adequate», and that «Accessibility requires economic and physical access to food to be guaranteed. Economic accessibility means that food must be affordable. Individuals should be able to afford food for an adequate diet without compromising on any other basic needs» ³.

That's the reason why we can consider there's a further European "constitutionalization" of the right to food even underlying letter (e) of Article 39 of the TFEU (and of the Treaty of Rome), stating that the CAP must «ensure that supplies reach consumers at reasonable prices». The availability wouldn't be relevant without accessibility.

Accessibility depends, in turn, not only on low prices, of course, since the concept of "low" itself is somewhat relative: relative to disposable income, to the spending power of most of the people, whereas also infrastructural problems can sometimes affect the practical (namely: physical) accessibility of food (as well as of any other resources).

But, for sure, in EEC founders' minds there was a clear project of European Institutions seriously committed in building a supranational food

² See i.a. I. HÄRTEL, *The Right to Food – Normative references in the multilevel system*, in I. HÄRTEL, R. BUDZINOWSKI (eds.), *Food security, food safety, food quality: current developments and challenges in European Union law*, Baden- Baden, 2016, 15-35.

³ Office of the High Commissioner for Human Rights of the UN - FAO, *The Right to Adequate Food*, Fact Sheet No. 34, Geneva, 2010. The right to food is also recognized in other international conventions protecting specific groups; i.a.:

- Convention on the Elimination of All Forms of Discrimination against Women (1979)
- Convention on the Rights of the Child (1989)
- Convention on the Rights of Persons with Disabilities (2006);
- beyond being recognized also in some regional instruments, and implicitly through other rights (such as right to life, to health, to economic, social and cultural development).

system able to grant food security (= availability + accessibility) to EU citizens and to all people living on the European territory.

From this point of view, the wording of the Charter of Fundamental Rights of the European Union, not expressly mentioning the right to food, seems to be somewhat a step back, forcing lawyers to deduct the right to food from other (indirect) legal provisions, such as the right to life and to the integrity of the person (Articles 2 and 3).

3. “Constitutionalisation” of agriculture as the guardian of food security

So, we cannot only consider the right to food as “constitutionalized” – in some way – by the Treaty of Rome: we must also take into account the privileged role of the agriculture in implementing such right. A role which appears absolutely central.

Indeed, we could say that, according to the views of the Treaty’s drafters, food security can be granted to European people only (or mainly) by means of the CAP. This is the strategic lever that allows EU to be able to respond to food challenges.

In an evolutionary (and actualized) perspective, such challenges can be represented:

- *both* by the increase of population and of food demand (which in Europe are mainly linked to immigration, actually, and predictably increasing in the next future, due to climate, war and hunger ⁴ emergencies in so many third countries) *and* by the structural modifications of productivity generated, all over the planet, by climate change ⁵;

- *both* by (hopefully) conjunctural problems due to regional wars concentrated in areas usually strategic for some of the most important commodities (or even by other conjunctural issues due to post-pandemic readjustments of the worldwide logistics), *and* by more structural changes which seem to be the consequence of new economic equilibria: more and more States (formerly developing countries) have now reached objectives of major average incomes, and have therefore significantly modified also their consumption and nutritional habits, causing brand new dynamics in the world’s food demand evolution.

⁴ Struggle against hunger had marked important progresses before Covid pandemic and the recent war events, but last huge surge in prices of commodities and energies seems to be going to cause many setbacks. On this topic see *Global Report on Food Crises – 2021*, at <https://www.wfp.org/publications/global-report-food-crises-2021>

⁵ F. EWERT, M.D.A. ROUNSEVELL, I. REGINSTER, M.J. METZGER, R. LEEMANS, *Future scenarios of European agricultural land use: I. Estimating changes in crop productivity*, in *Agriculture, Ecosystems & Environment*, Volume 107, Issues 2–3, 2005, 101-116; J. GORNALL ET AL., *Implications of climate change for agricultural productivity in the early twenty-first century*, in C. H. GODFRAY ET AL., *Food security: feeding the world in 2050*, Philosophical Transactions B, Royal Society Vol. n. 365 (2010), at <https://royalsocietypublishing.org/doi/full/10.1098/rstb.2010.0158>

The latter is a phenomenon which could already be perceived also some years ago, well before the Covid-19 crisis and before the war between Russia and Ukraine ⁶.

In this extremely complex framework, what is the EU doing? Better, what is it supposed to do? This is a question that directly involves the role played by the EU in the current international context, where we can expect that also the geopolitical powers will tend to correspond more and more to the control on food resources; and that the real political sovereignty will tend to correspond more and more to the s.c. “food sovereignty”.

4. A substantial abdication to its role ...

In the last three decades, EU has substantially given up its role in feeding the world. The roots of such an epochal change, after nearly 40 years of coupled aids to farmers, have been partly ethical, partly economic and partly legal.

At the ethical level, a growing awareness had spread about the fact that using the EC's production surplus to feed international aids – and particularly food aids to LDCs – couldn't be considered as “the solution” to save LDCs from hunger. Consolidating a situation where these countries permanently rely upon foreign support creates an increasing dependency of them on rich countries, and new forms of “colonialism”, discouraging the development of self-sufficient agrifood systems and the creation of autonomous production capability.

An echo of this can be seen in some of the most significant acts of the international law, traditionally aiming at favoring the ability of LDCs and DCs to produce their own resources and to gain at least a basic “endogenous” minimum level of food security ⁷.

Being a resource for other countries' survival has not been considered, by the EU Institutions, as a sufficient reason to increase the productivity of European agriculture (this way seeming to forget that, for example, during the “cold war” period, food support had constantly been a key element of the

⁶ See e.g. J. KEARNEY, *Food consumption trends and drivers*, in C. H. GODFRAY ET AL., *Food security: feeding the world in 2050*, Philosophical Transactions B, Royal Society Vol. n. 365 (2010), at <https://royalsocietypublishing.org/doi/10.1098/rstb.2010.0149>

⁷ See e.g. the FAO Constitution describing (in its Preamble) the “statutory purposes” of such organization as «securing improvements in the efficiency of the production and distribution of all food and agricultural products», as «bettering the condition of rural populations» as tools aiming at «ensuring humanity's freedom from hunger»; and identifying, among the “functions” of FAO, the promotion of «scientific, technological, social and economic research relating to nutrition, food and agriculture»; «the improvement of education and administration relating to nutrition, food and agriculture, and the spread of public knowledge of nutritional and agricultural science and practice»; «the adoption of improved methods of agricultural production»; «the improvement of the processing, marketing and distribution of food and agricultural products»; «the adoption of policies for the provision of adequate agricultural credit, national and international»; finally providing assistance to governments requiring for it, organizing (in cooperation with the governments concerned) such missions as may be needed to assist them and generally taking all necessary and appropriate action to implement the purposes of the Organization as set forth in the Preamble.

geopolitical control and strategy of both geographical “blocks”: the Western block and the Soviet block) ⁸.

At the economic level, analysts kept on warning about the two sides of the coin: if on the one hand Europe, formerly deficient – as to food – had quite rapidly (over three decades) turned into a self-sufficient area, and suddenly into a surplus-producing area (by virtue of its strongly stimulative mechanisms of agricultural support), on the other hand such a comfortable result costed too much. The main part of the EU annual budget was constantly destined to fund various instruments of “coupled” domestic and external agricultural support.

This had been for a long time a powerful incentive both for short-term (e.g. better seeds, more productive crops) and for mid- and long-term (namely: structural) investments. This resulted, inter alia, also in negative externalities:

- a more intensive use of chemistry, especially in the ‘60s and ‘70s, with serious negative environmental impact (not exactly what we would call “sustainable”, today);

- production surpluses, often resulting in periodical prices’ falls and/or instability, thus in lowering average incomes of farmers;

- the need to support those incomes, by “purchases of State”, or by protectionist tools (such as the notorious “levies” applied to most commodities’ imports), or by financing agricultural exports: all measures acting as “safety nets” and thus resulting, in turn, into further incentives to farmers, inducing further imbalances, needing further support and further public expenses: literally, a vicious circle;

- an European agricultural expense potentially out of control and, as a result, a series of competition-distorting measures, whose growth seemed to have no end.

⁸ See i.a., from a very general perspective, R.L. PAARLBERG, *Proceedings of the Academy of Political Science*, Vol. 34, No. 3, *Food Policy and Farm Programs* (1982), 25-39; P. WALLENSTEEN, *Scarce Goods as Political Weapons: The Case of Food*, in *Journal of Peace Research*, Vol. 13, No. 4 (1976), 277-298. See also J. FAŁKOWSKI, *U.S. food aid and American exports to recipient countries during the Cold War*, in *Agricultural Economics*, Volume 49, Issue 5, September 2018, 659-668; H.R. NAU, *The Diplomacy of World Food: Goals, Capabilities, Issues and Arenas*, in *International Organization*, Vol. 32, No. 3, *The Global Political Economy of Food* (Summer, 1978), 775-809 (particularly dealing with the grains sector); A study by R.M. SPAULDING, *"Agricultural Statecraft" in the Cold War: A Case Study of Poland and the West from 1945 to 1957*, in *Agricultural History*, Vol. 83, No. 1 (Winter, 2009), 5-28, is particularly interesting because of its focus on US food aid policy as a tool to interfere in the Soviet zone of influence. About the direct conflicts of food aid policies between US and USSR see, i.a., A. HALE-DORREL, *The Soviet Union, the United States, and Industrial Agriculture*, in *Journal of World History*, Vol. 26, No. 2 (June 2015), 295-324; H. FRIEDMANN, *The Political Economy of Food: The Rise and Fall of the Postwar International Food Order*, in *American Journal of Sociology*, Vol. 88 (1982), *Supplement: Marxist Inquiries: Studies of Labor, Class, and States*, 248-286; Z. QUINGMING, *Challenging Soviet Union's Influence and Soviet Bloc Unity: United States Economic Aid to Yugoslavia in Early Cold War*, in *International Journal of Russian Studies* No. 9/1, January 2020, 93-103. The aftermath of this conjunction of agricultural aids and policy of influence has been analyzed (from an US perspective) by J. MCGLADE, *More a Plowshare than a Sword: The Legacy of US Cold War Agricultural Diplomacy*, in *Agricultural History*, Vol. 83, No. 1 (Winter, 2009), 79-102.

5. ... and its legal roots

From a legal perspective, the “external effects” of such trade-distorting measures (very commonly used, indeed, on a worldwide basis, particularly by the most important EU’s trade partners) were definitely in the spotlight, between the ‘80s and the ‘90s, when Uruguay Round deal makers led negotiations with the aim of establishing the WTO, of creating a new legal framework for international agricultural trade and of “bringing agriculture into GATT”⁹.

Shyly, at first, with the 1992-1994 CAP reform, and finally in a full-blown way with the following reform of 2003 (also known as “Fischler Reform” source)¹⁰, the entire CAP of the EU was revolutionized from the ground up. The whole system of agricultural support was re-built around the following two categorical imperatives (strictly connected with each other):

(a) the *total decoupling* (of internal support, first of all, but implying also the complete elimination of export subsidies, which once constituted one of the basic instruments of the CAP and that, from 2011, almost disappeared from the EU’s agricultural toolkit), and

(b) a new idea of agriculture, almost completely *market-oriented*: in the new policy farmers had no more to be considered as food producers (or, in a broader sense, as producers of “strategical resources”, thus deserving an exceptional protected status), but rather and merely as entrepreneurs, market players who must derive their revenues basically from market and who have to be subject to market dynamics, no matter if these (thanks to the tariff reductions and to the subsequent market opening) are increasingly influenced by exogenous factors, completely out of farmers’ control, sometimes even determined by reasons of financial speculation (such as futures and derivative contracts, significantly influencing commodities’ prices fluctuations in the international markets: operations not run in the farmland, but rather in the stock and commodities exchanges of New York and Chicago)¹¹.

⁹ INTERNATIONAL AGRICULTURAL TRADE RESEARCH CONSORTIUM, 1997, *Bringing Agriculture into GATT: Implementation of the Uruguay Round Agreement on Agriculture and Issues for the Next Round of Agricultural Negotiations*. See also: P. DEMARET, *The Metamorphoses of the GATT: From the Havana Charter to the World Trade Organization*, in *Columbia Journal of Transnational Law*, 1995, 123; J.H. JACKSON, *The World Trade Organization. Constitution and Jurisprudence*, London, 1998; F. SMITH, *Agriculture And The Wto. Towards a New Theory of International Agricultural Trade Regulation*, Celtenham, UK, 2009.

¹⁰ See in particular Council Regulation (EC) No 1782/2003 of 29 September 2003 (OJ L 270, 21.10.2003), amended by Council Decision of 22 March 2004 (Act of Accession, OJ L 93, 30.3.2004), by Council Regulation (EC) No 583/2004 (OJ L 91, 30.3.2004) and by Council Regulation (EC) No 864/2004, corrigendum in OJ L 206, 9.6.2004).

¹¹ «The legal boundaries around financial derivatives markets can only be properly understood in light of their historical entanglement with US grain commerce, which has been centered in Chicago since the 1850s. And yet, prior to the 1970s the trading of derivatives in the US was quite distinct from trading in the financial sector. The trading of derivatives or what were called ‘futures’ was embedded in the trading of ‘commodities’ or bulk agricultural goods, the most common of which were grains»: C. MUELLERLEILE, *Speculative boundaries: Chicago and the regulatory history of US financial*

6. A hindsight bias?

Criticizing the basic inspiration that has characterized the CAP from 2003 on could now appear as a “hindsight bias”¹². Choices made years ago are now conditioning our vision about the current, and the future, food security perspectives and concerns; and it’s quite easy – now – to point the finger at them. But yet, critical voices did not lack, among scholars, even immediately after the 2003 and, then, the 2013 CAP reforms, about the way EU policy makers interpreted (and transferred into the basic regulations of the CAP) this ultra-liberal vision.

Aiming at co-working together with the “tariffication”¹³ of all non-tariff barriers and with a huge reduction of customs duties, in the view of the WTO negotiators (all negotiators, including those from EU), such a vision had the objective of creating a worldwide open market, and gave the legal basis for the emerging and irrepressible phenomenon of the s.c. “globalization of markets”¹⁴.

derivative markets, Environment and Planning A, 2015, Vol. 47, 1805 – 1823. See also, i.a., C.L. GILBERT and C.W. MORGAN, *Food price volatility*, in *Phil. Trans. R. Soc.* (2010) B365, 3023–3034; B. KARALI and W.N. THURMAN, *Components of Grain Futures Price Volatility*, in *Journal of Agricultural and Resource Economics* 35, No. 2 (2010), 167-182; J. GHOSH, *Implications of Regulating Commodity Derivatives Markets in the USA and EU* (October 4, 2011), in *PSL Quarterly Review*, Vol. 64 (2011), No. 258, 287-304; J. GHOSH, J. HEINTZ, R. POLLIN, *Speculation on Commodities Futures Markets and Destabilization of Global Food Prices: Exploring the Connections*, *International Journal of Health Services*, 2012, 42(3), 465-483; S. Irwin, D. Sanders, R. Merrin, *Devil or Angel? The Role of Speculation in the Recent Commodity Price Boom (and Bust)*, in *Journal of Agricultural and Applied Economics* (2009), 41(2), 377-391.

¹² «In hindsight, people consistently exaggerate what could have been anticipated in foresight. They not only tend to view what has happened as having been inevitable but also to view it as having appeared ‘relatively inevitable’ before it happened. People believe that others should have been able to anticipate events much better than was actually the case»: B. FISCHOFF, *Hindsight ≠ Foresight: The Effect of Outcome Knowledge on Judgement Under Uncertainty*, in *Journal of Experimental Psychology: Human Perception and Performance*, Vol 1(3), Aug 1975, 288-299.

¹³ “Tariffication” is a neologism by which, in the WTO practice language (see e.g. https://www.wto.org/english/thewto_e/glossary_e/tariffication_e.htm, or https://www.wto.org/english/tratop_e/agric_e/ag_intro02_access_e.htm), the conversion of WTO members’ non-tariff measures to equivalent bound tariffs is called. Such a conversion is required by paragraph 2 of Article 4 of the WTO Agreement on Agriculture, by stating that «Members shall not maintain, resort to, or revert to any measures of the kind which have been required to be converted into ordinary customs duties, except as otherwise provided for in Article 5 and Annex 5». A footnote then explains that «measures required to be converted into ordinary customs duties» include quantitative import restrictions, variable import levies (such as the ones usually imposed at that time by the EC on its grains imports), minimum import prices, discretionary import licensing, non-tariff measures maintained through state-trading enterprises (largely used by the US) and voluntary export restraints and similar border measures other than ordinary customs duties.

¹⁴ See K. ANDERSON, *Globalization's effects on world agricultural trade, 1960–2050* in C. H. GODFRAY ET AL., *Food security: feeding the world in 2050*, *Philosophical Transactions B, Royal Society* Vol. n. 365 (2010), at <https://royalsocietypublishing.org/doi/full/10.1098/rstb.2010.0131>

It seemed to match, almost perfectly, with the worries of most European member States and of the EU institutions, deeply concerned of the “vicious circle” described above, and fearing that the budget item destined to agricultural support could become a sort of a “black hole”, soaking an ever-increasing quota of the EU budget (thus, of resources transferred to it by EU countries).

They didn’t seem to consider at all how dangerous was to entirely base the EU agricultural support on totally decoupled premises; to tell farmers they would have been aided to a lesser (compared with the past) and fixed extent, even if not producing at all; to send them out on the market, to compete with bigger and better organized farmers, and traders, and processors (purchasers), of some important market players (e.g. the US), or with other suppliers of commodities operating in countries where lower production costs are usually prevailing.

Open competition, even for industrial products, is hard to face. For farmers, it’s even harder, because of the intrinsic weakness and fragility of the agricultural activity and of its social structure (at least in Europe) and because of its inherent exposure to climate and environmental risks. Furthermore, we should seriously doubt that a completely open competition can be a strategic choice, especially when leading to very “delicate” dependencies among States ¹⁵.

We could call them “the intrinsic dangers of the globalization”: there’s no guarantee that the virtuous mechanism experienced during the long European integration process (where economic interdependence has mostly acted as a decisive factor of political coexistence) can be simply recreated as such at the worldwide level. Recent news of what’s happening just outside the EU borders seem to be a significant demonstration of that.

Indeed, the choices made by the CAP drafters, from 2003 on, although almost perfectly in line with the commitments made by signing the Agreement on Agriculture of the WTO, could have neglected some collateral effects. It is perhaps not by chance that other WTO members, main commercial partners of the EU, though substantially fulfilling their multilateral obligations, usually preferred to maintain some mitigations with regard to the “total decoupling” principle.

Furthermore, notwithstanding the understandable worries for the rising costs of the agricultural support, EU totally omitted giving the right weight to the fact that, perhaps, even a large share of the EU budget is nothing but a very small quota of their national budgets; and that resources allocated to financing a great availability of strategic commodities have the effect of better granting food security and – strongly linked to it – political stability, particularly when such a security can’t derive from the globalized context.

¹⁵ The Treaty of Rome (and currently the TFEU) indirectly, but expressly, confirms this assumption in its Article 42, by stating that «The provisions of the Chapter relating to rules on competition shall apply to production of and trade in agricultural products only to the extent determined by the European Parliament and the Council (...) account being taken of the objectives set out in Article 39».

It's reasonable, today, to assume that they maybe should have thought to such resources as “money well spent”: the grounds of a real and actual food- and political sovereignty. But they didn't.

7. And now?

The recent outbreak of war events, involving two of the main world suppliers of cereals and oilseeds (as well as of energies, which are equally crucial for European area and its economy), has occurred right after a huge financial effort, necessary to revitalize European economies after the Covid-19 pandemic. Right after an unprecedented debt exposure of European member countries (and of the EU itself), probably making the EU area financially unstable for the decades to come. Right after enormous difficulties of logistics, induced by the many and repeated stop-and-go of the biggest Western and Eastern economies, industries, transport operators, etc.

Furthermore, it has occurred a couple of months after the EU had issued a long-awaited, but also very limited, reform of its CAP of 2013. With its 2021 Regulations, the very principles and choices at the ground of its agricultural policy haven't been rethought¹⁶. Not even questioned: the decoupling – for one thing – still remains its basic and monolithic inspiration.

Finally, war has broken out right before the EU started the implementation of its new climate agenda, by means of the s.c. “Green Deal”¹⁷ and – with a more specific regard to the agrifood sector – by launching its

¹⁶ See Regulation (EU) 2021/2115 of the European Parliament and of the Council of 2 December 2021 establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulations (EU) No 1305/2013 and (EU) No 1307/2013 (OJ L 435, 6.12.2021, 1–186); Regulation (EU) 2021/2116 of the European Parliament and of the Council of 2 December 2021 on the financing, management and monitoring of the common agricultural policy and repealing Regulation (EU) No 1306/2013 (OJ L 435, 6.12.2021, 187–261); Regulation (EU) 2021/2117 of the European Parliament and of the Council of 2 December 2021 amending Regulations (EU) No 1308/2013 establishing a common organisation of the markets in agricultural products, (EU) No 1151/2012 on quality schemes for agricultural products and foodstuffs, (EU) No 251/2014 on the definition, description, presentation, labelling and the protection of geographical indications of aromatised wine products and (EU) No 228/2013 laying down specific measures for agriculture in the outermost regions of the Union (OJ L 435, 6.12.2021, 262–314).

¹⁷ The link between CAP and the “Green Deal” of the EU is well analyzed in COMMISSION STAFF WORKING DOCUMENT, *Analysis of links between CAP Reform and Green Deal*, 20.05.2020, SWD(2020) 93 final, at https://ec.europa.eu/info/sites/default/files/food-farming-fisheries/sustainability_and_natural_resources/documents/analysis-of-links-between-cap-and-green-deal_en.pdf
Actions in the Green Deal framework are explained at https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/delivering-european-green-deal_en

“Farm-to-Fork Strategy”¹⁸, largely based on the concept of extensification of agricultural production and on a more and more central role of the organic agriculture¹⁹.

I won’t question the importance of the environmental and climatic objectives underlying these new plans and choices, of course. But I can’t avoid thinking that, while European food processors are facing a dramatic shortage of commodities supply, with no less dramatic effects on prices of raw materials, and an equally dramatic surge in energy prices, immediately resulting in an enormous increase of production costs (in all sectors), with direct effects all the way down to the prices of finished products, on inflation and on purchasing powers of EU citizens (especially of low-income ones)²⁰,

(a) the only way to face the problem of food self-sufficiency in (at least) a mid-term perspective would be (at least partly) totally re-thinking the general approach on which the CAP is still based upon (though being aware that a controlled increase of production, when dealing with agriculture, won’t be an immediate effect);

(b) the only way of implementing the Farm-to-Fork Strategy, as it has been conceived so far (i.e. assuring a central role to “sustainable” and climate-friendly production methods), without affecting seriously (and perhaps almost permanently) the food security in the EU area, would be to route the resources of all the financial tools, currently discussed in Brussels, to R&D programs and investments.

As to the first aspect (re-thinking the general approach of the CAP), we note that, notwithstanding a legal provision, contained in Regulation (EU) 2115 of 2021 (Articles 32 and 33) allowing a partial reintroduction of coupled aids for a long list of agricultural sectors (including cereals, oilseeds and protein crops), on condition that they need «help ... to address the difficulties encountered by improving competitiveness, sustainability or quality» and that the concerned sectors «are important for socio-economic or environmental reasons», the European Commission has preferred to adopt short-term measures.

See also J.P. BELTRÁN ET AL., *The Impact of the European Green Deal from a Sustainable Global Food System Approach*, *European Food and Feed Law Review*, Volume 17, Issue 1 (2022), 2 - 38.

¹⁸ *A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system*, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2020) 381 final, Brussels, 20.5.2020, at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0381>

See also H. SCHEBESTA, N. BERNAZ, C. MACCHI, *The European Union Farm to Fork Strategy: Sustainability and Responsible Business in the Food Supply Chain*, *European Food and Feed Law Review*, Volume 15, Issue 5 (2020), 420 - 427.

¹⁹ See also *Action Plan for the Development of Organic Production*, COM(2021) 141 final, Brussels, 19.4.2021, at <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52021DC0141>

²⁰ “For the EU food availability is not at stake, though food affordability for low-income persons is”: *Safeguarding food security and reinforcing the resilience of food systems*, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2022) 133 final, Brussels, 23.3.2022, at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2022:133:FIN>

So far, the Commission has opted

- to distribute s.c. “national envelopes” to Member States (a total amount of € 500 million, to be co-financed with national funds at the discretion of EU countries) to allow them supporting the producers in the EU agricultural sectors affected by market disturbance induced by the war in Ukraine;

- to allow Member States to derogate from certain greening obligations (only, for now) in 2022, bringing additional agricultural land (qualified as “ecological focus areas” - EFAs) into production, with a resulting expected increase of 5% of cultivated arable lands in 2022²¹.

As to the second aspect (priority to innovation and R&D investments), it should be noted that it’s not only a matter of financial resources. What Europe would need in order not to give up its historical role and its own food sovereignty is a “Copernican revolution” in thinking the concept of agricultural innovation.

8. R&D, agriculture, supply chain and food security

Science and technology give us a determinant help in this mission. They can help us in (positively) upsetting the idea of agriculture itself, shifting from an outdated image of the farmers towards a highly technological sector, where possible losses of production due to the adoption of more sustainable agricultural techniques²² can be compensated (and hopefully overcome) by a completely new approach to farming and to production of meat, giving space and life (and also a more friendly legal environment) to the new frontiers of the applied life sciences: “precision agriculture”, significantly helped by our ever-increasing ability to analyze data and big data; new

²¹ Commission Implementing Decision (EU) 2022/484 of 23 March 2022 providing for derogations from Regulation (EU) No 1307/2013 of the European Parliament and of the Council and from Commission Delegated Regulation (EU) No 639/2014 as regards the implementation of certain conditions relating to the greening payment for claim year 2022 (notified under document C(2022) 1875).

²² See, i.a., J. BARREIRO-HURLE, M. BOGONOS, M. HIMICS, H. HRISTOV, I. PEREZ-DOMINGUEZ, A. SAHOO, G. SALPUTRA, D. WEISS, E. BALDONI, C. HELLEBY, *Modelling Transitions to Sustainable Food Systems: Are We Missing the Point?*, in *Eurochoices*, 2022, 12, DOI 10.1111/1746-692x.12339; T. DE PONTI, B. RIJK, M. K. VAN ITTERSUM, *The crop yield gap between organic and conventional agriculture*, in *Agricultural Systems*, 2012, 108, 1; V. SEUFERT, N. RAMANKUTTY, J. A. FOLEY, *Comparing the yields of organic and conventional agriculture*, *Nature*, 2010, 485, pp. 229 ss.; more recently, see R. JONGENEEL, H. SILVIS, A GONZALEZ MATINEZ, J. JAGER, *The Green Deal: An assessment of impacts of the Farm to Fork and Biodiversity Strategies on the EU livestock sector*, University of Wageningen, Report 2021-130, The Hague, 2021, at <https://edepot.wur.nl/555649>. Different opinions in T. G. BENTON, R. BAILEY, *The paradox of productivity: agricultural productivity promotes food system inefficiency*, in *Global Sustainability*, 2, 2019, e6, 1-8, at <https://doi.org/10.1017/sus.2019.3>; L. C. PONISIO, L. K. M'GONIGLE, K. C. MACE, J. PALOMINO, P. DE VALPINE, C. KREMEN, *Diversification practices reduce organic to conventional yield gap*, *Proceedings of the Royal Society B*, 2014, at <https://royalsocietypublishing.org/doi/10.1098/rspb.2014.1396>

A comprehensive view is in L. BOURGES, *The Impact of Food Legislation on Sustainability: Organic vs Conventional?*, *European Food and Feed Law Review*, Volume 15, Issue 1 (2020), 18 - 24.

biotechnologies, radically and substantially different from the “classical” techniques based on transgenesis; cell cultures, a promising new field in the battle for reducing environmental and climatic impact of food production ²³.

It's not so obvious in the EU, since – paraphrasing the title of a famous novel by Cormac McCarthy (and of a movie directed by Coen brothers) – it mostly seems to be “No Country for Agrifood Innovators”. Only by way of example, we have:

- a discipline of food enzymes (an extremely important innovation tool for food processing industry) still lacking of a substantial part of it: i.e. still lacking the “positive list” of authorized substances, although provided for by EC Regulation No. 1332 of 2008, thus still incomplete after 14 years; this results into a lack of harmonization and legal uncertainty for food business operators, when trying to extend their own markets to other member States;

- a discipline of the s.c. “coloring foods” ²⁴ still not existing, nay, still committed to “Guidance notes” not easily accessible (and, most of all, not legally binding, so often not even recognized by some Member States) ²⁵;

- more broadly, a total lack of discipline of the technological phenomenon of s.c. “functional ingredients” (in which the category of the “coloring foods” could perhaps be included): one of the most innovative parts of the European food industry is continuously researching on them, often with the aim of limiting their markets to third countries, due to the absolute uncertainty of the regulatory status of such innovations in the EU;

- a regulation of the “novel foods” whose reform, in 2015, has eliminated all references to the concept of “substantial equivalence” (which previously allowed, under the former discipline of 1997, a fast track – and significantly cheaper – authorization for many new products not substantially differing from other “ordinary” foods, or ingredients, already marketed in the EU with a long history of safe use);

²³ See e.g. K. VERZIJDEN, J. BUIJS, *Meat 3.0 - How Cultured Meat is Making its Way to the Market*, *European Food and Feed Law Review*, Volume 15, Issue 2 (2020), 96 - 107.

²⁴ More properly: “food ingredients with secondary coloring properties”, a very interesting alternative to food artificial colors, that can help in finding new market shares by accommodating the global tendency to replace food additives by “natural” ingredients: see N.H. MERMELSTEIN, *Coloring Foods and Beverages*, in *Food Technology Magazine*, 1 January 2016; S. FALLAH, M. LÜTZOW, A. REINHART, *Safety of Colouring Foods – Regulations, Facts and Perceptions*, *European Food and Feed Law Review*, Volume 16, Issue 5 (2021), 390 - 402.

²⁵ Standing Committee on the Food Chain and Animal Health, «Guidance notes on the classification of food extracts with colouring properties», of 29th November 2013, currently removed from the EU Commission’s website, because of their ongoing review (with no certainty about the timeline of their future availability). See A. REINHART, *Colouring Foods versus Food Colours: Guidance Notes on the Classification of Food Extracts with Colouring Properties*, in *European Food and Feed Law Review*, Vol. 9, No. 2 (2014), pp. 105-113. Furthermore, such Guidance Notes are also incomplete, still lacking of their Annex III, which should contain the list of the raw materials from which “coloring foods” can derive. A draft list, still provisional and with no substantial legal value (even as a soft law text), had been included in a Technical Report of the EU Commission’s Joint Research: «*Provision of scientific and technical support with respect to the classification of extracts/concentrates with colouring properties either as food colours (food additives falling under Regulation (EC) No 1333/2008) or colouring foods*», issued in 2015.

- and, furthermore, a novel foods discipline now considering as “new” (thus subject to the complex and expensive pre-marketing approval) foods and ingredients simply for the fact they weren’t used for human consumption to a significant degree within the Union before 15th May 1997 (without considering that in 1997, when their early discipline entered into force, this provision made sense, because such a food was actually “new” at that time, but today we can’t say the same);

- finally, a quite outdated definition and regulation of GMOs and of the s.c. “GM foods” (Directive 2001/18/EC and EC Regulations No. 1829 and 1830 of 2003) which seem to be totally unresponsive to the huge progress of biotechnology: while the legal texts are still on their original wordings (strange fact for a discipline concerning a so rapidly evolving matter)²⁶, the advent of the s.c. NBTs (or NGTs) should now force EU to deeply re-think its approach²⁷.

As many know, the response of the EUCJ to such a challenge (judgement of July 2018, case C-528/16) has been very “precautionary”, stating that they still must be currently qualified as GMOs (despite of their intrinsic differences both concerning the processes and the resulting products, and despite the “open” views expressed by the European Food Safety Authority on more than one of them)²⁸. Though, the Court implicitly seemed to declare, between the lines, that the legal interpretation adopted by it was in some way forced by the need to fill a lack of discipline²⁹.

The EU Commission expressed its worries when replying to the EU Council’s request to draw up a study «in light of the Court of Justice’s judgment in Case C-528/16 regarding the status of new genomic techniques under Union law». It issued a «Study on the status of new genomic techniques under Union law and in light of the Court of Justice ruling in Case C-528/16» [SWD(2021) 92 (29th April 2021), that deserves some highlights:

- «developments in biotechnology, combined with a lack of definitions (or clarity as to the meaning) of key terms, are still giving rise to ambiguity

²⁶ Unlike other important international agricultural trade players, who have recently put their hands on their (very different) legislation: see M. R. Grossman, *The SECURE Rule: New Regulations for Crop Biotechnology in the United States*, in *European Food and Feed Law*, 6/2020, 548.

²⁷ See EUROPEAN ACADEMIES’ SCIENCE ADVISORY COUNCIL (EASAC), *Genome editing: scientific opportunities, public interests and policy options in the European Union*, March 2017, at <https://easac.eu/publications/details/genome-editing-scientific-opportunities-public-interests-and-policy-options-in-the-eu/>

²⁸ See EFSA, *Overview of EFSA and European national authorities’ scientific opinions on the risk assessment of plants developed through New Genomic Techniques*, EFSA Journal 2021;19(4):6314, available at <https://www.efsa.europa.eu/en/efsajournal/pub/6314>; and EFSA, *Overview of sixteen scientific opinions on genetically modified plants obtained by new genomic techniques*, EFSA Journal 2021;18(4):EN-1973, available at <https://www.efsa.europa.eu/en/supporting/pub/en-1973>

²⁹ See, i.a., P. VAN DER MEER ET AL., *The Status under EU Law of Organisms Developed through Novel Genomic Techniques*, in *European Journal of Risk Regulation*, 2020, 1-20; EUROPEAN ACADEMIES’ SCIENCE ADVISORY COUNCIL (EASAC), *The regulation of genome-edited plants in the European Union*, March 2020, at <https://easac.eu/publications/details/the-regulation-of-genome-edited-plants-in-the-european-union/>

in the interpretation of some concepts, potentially leading to regulatory uncertainty»;

- as a consequence, «there is considerable interest in research on new genomic techniques in the EU, but most of development is taking place outside the EU»;

- «in light of the different regulatory oversight for NGTs in other countries, the above difficulties could lead to trade limitations and disruptions, and put EU operators at a competitive disadvantage, with further negative consequences»;

- «Regulatory barriers would particularly affect small and medium-sized enterprises (SMEs) and small- scale operators seeking to gain market access with new genomic techniques»³⁰.

Of course, these examples are completely heterogeneous: “coloring foods”, “functional ingredients”, novel foods, food enzymes, NGT crops, etc., often are categories with very little to do with each other. But still, their lowest common denominator is that they represent some of the most innovative aspects of the food supply chain as a whole. They’re mostly derived from raw materials of agricultural origin; a clear regulation of them would immediately turn into new market opportunities for the agrifood sector; whereas their use in food processing for technological functions could improve the efficiency, the attractiveness and, thus, the market opportunities of many processed agrifood products.

They wouldn’t deserve to be mentioned all together, in the same paragraph of this brief essay, except for only one and simple reason: the uncertainty of their legal regime in the EU law (sometimes because of the incompleteness of their discipline, sometimes because of a total lack of it, only occasionally made up for by some national legislations, with consequences in terms of missing harmonization and of functioning of the internal market) is the “litmus test” of a “mood” of the EU legislation with regard to innovation. To continue with the metaphors, it’s the tip of an iceberg, whose main part underwater has been, so far and in best case, a “not so marked legislative sensitivity” toward the potential of R&D in the agrifood sector. A potential that seems to become properly *a need*, when the password everywhere becomes “sustainability”, in a global food system not surely able to indefinitely feed the world (and in an European food system not surely able to feed itself).

9. Conclusive remarks

The road to a new food security vision in Europe seems therefore to pass by

- 1) a partial recovery of a role for the coupled aids within its Common Agricultural Policy.

³⁰ About this specific issue see, e.g., C. Canales e R. Fears, *The Role of Science, Technology, and Innovation for Transforming Food Systems in Europe*, Food Systems Summit Brief prepared by Research Partners of the Scientific Group for the Food Systems Summit, April 2021, at https://easac.eu/fileadmin/PDF_s/reports_statements/Food_Security/FSS_Brief_IAP_Europe.pdf

Obviously, nobody wants to return to the system in force prior to 2003 CAP reform, as such, but the idea would be to use some coupled measures as a “control lever” of the agricultural productivity of the EU, leaving aside any worries of violation of WTO agreements (better, investigating all the possibilities allowed by the Agreement on Agriculture, whose “green box” seems not to be missing important references to food security of WTO members, as an exception to the decoupled approach);

2) a whole new attitude (even in legal terms) towards the agrifood innovation, not limited to investments but also aiming at creating a more innovation-friendly legal environment.

These two key points seem to give the only really contemporary meaning to the concept of «*rational* development of agricultural production» and of «optimum utilisation of the factors of production», mentioned by Article 39 of the TFEU. Thus, they could represent the only way to assure the availability (and accessibility) of supplies, and to ensure that supplies reach consumers at reasonable prices.

On the other hand, continuing with the current approach – a disincentive of production development and of many opportunities of innovation, with the pursuance only of an illusive and idyllic extensification of agrifood production – in this particular situation could even result into an open violation of EU’s constitutionalized principle, which, on the contrary, obliges EU institutions to protect and enhance, if possible, the level of food security in Europe.

Food security for the European population and, to some extent, even for the rest of the world.

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