Food Safety, Coronavirus and Risk Prevention: Future Perspectives in Four Proposals

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COVID-19 is a zoonosis, a disease transmitted by an animal to humans. The diffusion of the outbreak is therefore born of an unsuitable, insufficient, excessively permissive food safety system. Hence, the regulation of food safety plays a central role in the protection of health and has done so on a global scale. The overall regulation of food safety therefore requires an increase in the level of health protection, even at the expense of commercial prerogatives. For these purposes, four reform measures are suggested: to transform the Codex Alimentarius Commission into an organisation that adopts international standards with the sole purpose of protecting health; to apply the precautionary principle on a global scale and in international organisations; to strengthen the mandatory labelling tool; and to create a worldwide system of controls.

I. Introduction

One of the few certainties about the root causes of COVID-19 (commonly known as the "coronavirus") is that the disease qualifies as a zoonosis[1] (ie an animal disease transmitted to humans). In addition, as strong evidence links the epidemic to infected animals displayed in a market to be sold as food, it is clear that the pandemic that shocked the world in 2020 is closely intertwined with food safety. Moving from here and looking at the phenomenon through the lens of those who study the overall regulation of this sector, three reflections can be made.

Firstly, the issue of food safety is global: if food safety regulations are ineffective, insufficient or too permissive anywhere in the world, or even close to home, the effects may be felt on a global scale. Real or perceived risks within food regulation systems can have consequences for trade (eg restrictions on unsafe products) and damage suppliers, vendors and whole food industries, causing economic and reputational damage. Or, as most of the planet has witnessed in recent months,

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[1] On this, see IPES FOOD, *Covid-19 and the Crisis in Food Systems: Symptoms, Causes and Potential Solutions*, Communicate of April 2020 <http://www.ipes-food.org/_img/upload/files/COVID-19_CommuniqueEN.pdf>; WHO, *Coronavirus Disease 2019 (COVID-19) Situation Report – 94*, p 2, <https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200423-sitrep-94-covid-19.pdf?sfvrsn=b8304bf0_4>; T Ahmad, M Khan, TH Musa, S Nasir, J Hui, DK Bonilla-Aldana and A Rodriguez-Morales (2020), *COVID-19: Zoonotic aspects. Travel Medicine and Infectious Disease*, in press <https://www.researchgate.net/publication/339529719_COVID-19_Zoonotic_aspects> (last accessed 27 August 2020).

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problems stemming from flawed food safety systems can devastate the health and well-being of individuals, communities and the economies of entire nations.

Secondly, if the problem is global, then so must be the solution. Although the globalisation of goods and trade still presents unresolved problems,[2] a path of "deglobalisation" seems anachronistic and illogical, starting with the renouncing of world trade as we know it for an unlikely autarchy of the Nation States (even if we accept that efforts to contain the coronavirus in recent months have been almost exclusively domestic[3]). However, looking at the long run and considering the indirect consequences of the epidemic, the governance[4] of food safety must be organised on a global scale with greater and more effective development of instruments that are already available, including common rules and regulatory mechanisms, supranational institutions, world administrative and judicial systems and coordination and linking mechanisms between States or between regions of States.

Thirdly, if the legal instruments for common health and food safety governance already exist and need to be strengthened, we need to consider the direction in which to do so (ie with what content, with what objectives and with what resources). In this regard, as will be shown in this paper, the sector in question needs improvement not only with regards to the COVID-19 pandemic, but also because it is still ineffective in the prevention of many diseases of agro-food origin. Bearing in mind that the perspective of prevention is the most sustainable, most effective and least costly in terms of the current state of global regulation, it is necessary to highlight a need for improvement: the level of protection of health from food products must be increased; the scope of food safety regulation must be extended to all of the phases of food production; and the harmonisation of principles, rules, standards and regulatory approaches must be achieved according to parameters of safety that are greater than those that are currently in place.[5]

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[2] The literature presenting a critical appraisal of the phenomenon is vast. Among others are to be mentioned: JE Stiglitz, *Globalization and Its Discontents* (new ed.) (New York, W.W. Norton 2018); Z Bauman, *Globalization: The Human Consequences* (New York, Columbia University Press 2000); L Wallach and M Sforza, *The WTO: Five Years of Reasons to Resist Corporate Globalization* (New York, Seven Stories Press 2000); S Cassese, *Chi governa il mondo?* (Bologna, Il Mulino, 2013); M. Bussani, *Il diritto dell'occidente. Geopolitica delle regole globali* (Turin, Einaudi 2010).

[3] In this regard, however, the role played by non-national organisations, such as the World Health Organization and the European Union, which have contributed to the management of the epidemic directly with recommendations, guidelines, dissemination of data and information and international coordination, should not be underestimated. On the other hand, the direct and concrete implementation of the containment measures has been put in place by national and local authorities.

[4] There is a broad range of literature on this issue. Among others, see Commission on Global Governance, *Our Global Neighbourhood: The Report of the Commission on Global Governance* (Oxford, Oxford University Press 1999); D Held and A McGrew, *The Global Transformation Reader: An Introduction to the Globalization Debate* (Cambridge, Polity Press 2001) p 68; DC Esty, *Toward Good Global Governance: The Role of Administrative Law*, paper presented at the NYU Law School "Global Administrative Law Conference" (22–23 April 2005); Symposium on "Global Governance and Global Administrative Law in the International Legal Order" in European Journal of International Law, 17(1), 2006.

[5] It worth mentioning evidence concerning the mortality rate shown by the *Chinese Journal of Epidemiology* <http://chinaepi.icdc.cn/zhlxbxen/ch/index.aspx> and by the Report of the Italian Institute of Health <https://www.iss.it/documents/20126/0/Slide_approfondimentoEpidemiologico.pdf/1c388f9b-2989-bbfe-c64c-b89814bff2a7?t=1585313905924> (last accessed 27 August 2020). Both highlight that the presence of pre-existing ailments, in particular cardiovascular diseases and diabetes, raises the mortality rate (by two- to three-fold) in persons infected with influenza viruses like the one in question. This relationship is not to be underestimated, because cardiovascular disease and diabetes have largely the same origin. Poor nutrition, which is also a significant contributor to the huge spread of obesity, also increases vulnerability. According to the World Health Organization, obese or overweight

Nevertheless, it should be noted that any change will result in the expenditure of public money and sacrifices for other sectors, with greater costs for the food industry and consumers. Moreover, improved results in such regulation require a precise political will, shared by all States or most of the international community, which thus far has been lacking. Now, however, the global governance of such a sector is called upon to make radical and innovative decisions.

In the face of these problems, we will first discuss some possible solutions, then come back to them in the concluding section of this paper.

The first involves the balance between the interests at stake (ie mainly the protection of health and the freedom of production and trade of food and feed). The balance between the two sectors must be rethought in such a way that, with greater powers entrusted to the competent authorities, the protection of the former prevails at the expense of the latter. Such a paradigm shift must be made according to predefined and detailed rules – and not arbitrarily or for the benefit of partial interests. This suggests a reorganisation of the world's regulatory structures, notably the Codex Alimentarius Commission (CAC),[6] which – because of its overly free trade-orientated character (Section II) – should only become a standard-setting body of the World Health Organization (WHO), with the exclusion of the control of the Food and Agriculture Organization (FAO) and modifying the connection with the World Trade Organization (WTO). In this way, the WTO and the CAC would enter into a dialectical relationship, and the FAO would have the function of producing standards exclusively for the protection of health, through which to derogate the rules on free trade on the basis of decisions shared on a global scale and without giving rise to forms of protectionism of a nationalistic matrix (Section V.1).

Secondly, the time is ripe to extend the application of the precautionary principle to a global scale (Section V.2). Such a principle, which is now used only in the European Union (EU) and in some States, but not in international law (unless as soft law), has the effect of increasing the discretion of public regulators in the face of uncertain science and the possibility of risk and allows authorities to adopt preventative measures that are more restrictive than the common ones. In this way, it admits derogations to the harmonised system of rules in respect of some formal limits: only for temporary measures in cases of scientific uncertainty and for greater health protection than that established by common norms. Moreover, despite what is commonly believed, precautionary measures constitute a compromise aimed at limiting the protectionism and arbitrariness of Nation States because such preventative measures are circumscribed and governed by rules and procedures (Section III).

people are at least twice as likely to develop heart disease, cancer and diabetes – so-called non-communicable diseases <https://www.who.int/nmh/publications/ncd_report_full_en.pdf> (last accessed 27 August 2020).

[6] The most important player in the definition of international food safety standards is the CAC. Its dates back to 1963, when the Food and Agriculture Organization (FAO) and World Health Organization (WHO) approved the joint FAO/WHO programme for food standards and the Statutes of the Commission. The CAC was born under a joint programme established by two resolutions (Resolution 12/61, approved by the FAO General Conference of October 1962 and Resolution 16/42 of the WHO Assembly of 1 May 1963) of the so-called "parental organisations", namely the FAO and WHO. The CAC, as will be seen, adopts standards and guidelines on the safety and quality of food products, which, although they have no binding nature, have the effect of harmonising the safety and qualification criteria of food internationally.

Finally, all those regulatory instruments that are already in use, albeit with little efficacy, need to be strengthened and made more effective. Among these, two in particular need reforming: the traceability of the origins of food and mandatory information to be indicated on the label (Section V.3); and the harmonisation, coordination and horizontal connection between the systems of control on a global scale (Section V.4).

Every year, World Food Safety Day is held on 7 June. In 2019, less than a year before the COVID-19 pandemic, FAO and WHO announced that unsafe food causes many foodborne diseases worldwide that affect around 600 million people every year, posing a serious burden to global humanity.[7] The website of the European Food Safety Authority states that "almost one in ten people in the world fall ill after eating contaminated food",[8] with 420,000 people dying each year from unsafe food, including 125,000 children under the age of five.[9] The management of this issue is costly – not only in terms of human lives lost, but also in resources and time spent, and it is estimated at around US$110 billion per year are spent on medical and production expenses.[10]

These latest data would be enough to demonstrate that food safety is still a fundamental objective of global governance, and that reforms are needed in this area to improve the regulation of the sector, particularly for the purpose of protecting health and preventing diseases arising from the activities of agro-food production. Now, with the spread of the pandemic caused by COVID-19 – which has not been random, given the numbers mentioned above[11] – the world's decision-makers have the opportunity to rethink the system, ensuring that the regulation of food safety after coronavirus is able to ward off, or at least minimise, the risks of new food-borne pandemics arising.

II. International standards and food safety: the Codex Alimentarius Commission between health and free trade

The CAC, as mentioned above, is a second-level international organisation, created by FAO and WHO, to adopt standards, guidelines and codes of conduct on the safety and

[7] <https://www.who.int/news-room/events/detail/2019/06/07/default-calendar/celebration-of-world-food-safety-day> (last accessed 27 August 2020).

[8] <https://www.efsa.europa.eu/en/press/news/190607-0> (last accessed 27 August 2020).

[9] <http://www.fao.org/news/story/it/item/1197075/icode/> (last accessed 27 August 2020).

[10] <https://www.who.int/news-room/detail/06-06-2019-food-safety-is-everyones-business> (last accessed 27 August 2020). A deeper analysis is to be found on the website of Florida University <https://edis.ifas.ufl.edu/fs270> (last accessed 27 August 2020); A Hessing, R Goodrich Schneider, A Gutierrez, R Silverberg, MS Gutter and KR Schneider, *The Cost of Food Safety*, FSHN15-07, Food Science and Human Nutrition Department, UF/IFAS Extension. Original publication, October 2015, reviewed September 2018.

[11] Beyond the data provided in the text, it should be added that intensive animal farms – to name just one of the most widespread practices of the so-called "agro-industry" – contribute significantly to the pollution of land and water and the alteration of the climate. They have also caused thousands of deaths, as well as extensive economic damage, by facilitating the spread of outbreaks, such as bovine spongiform encephalopathy (BSE), *Salmonella* DT 104, *Escherichia coli* 0157, etc. As a confirmation of this, it is enough to report that various international studies show that about 25% of CO_2 emissions are produced from agricultural sources, amongst the most important of which are deforestation, the use of fertilisers from fossil fuels and the burning of biomass <http://climate.org/archive/topics/agriculture/index-italian.html> (last accessed 27 August 2020).

quality of agro-food products. The measures adopted by the CAC are based on scientific reports provided by independent committees established by "parental organisations", but they are then discussed and reworked – on the basis of distinct conveniences, political intentions and sensitivities – by representatives of the nation states that meet in the committees that are part of the CAC's organisational system. From a legal point of view, these measures constitute formally non-binding technical standards (soft law), of a specific and substantial nature, to which nation states can adjust their internal regulations, either by conforming to them (eg by transcribing their content into national regulatory measures) or by basing them on the parameters contained therein.

Standards are very important and, despite their non-binding character, very effective as regulatory tools for a number of reasons.

Firstly, because the international nature of supply chains means that foods and related resources are now constantly in movement around the globe, the transitory nature of food makes standardisation a very useful – indeed, essential – mechanism to facilitate trade, avoid arbitrariness by individual States and harmonise governance of the matter.[12] Moreover, the measures of the CAC are specific and very detailed, presenting technical parameters and defined limits: it is very difficult for a State that wants to comply with international law to diverge from the contents of the standards.

Secondly, the total number of the CAC's Member States, which, with governmental delegates, actively participate in the drafting and approval of the standards, is 187.[13] As this equates to the majority of all countries in the international community, it is fair to say that the CAC is well attended.

Finally, the CAC is closely linked to and recalled by the WTO rules – notably, the so-called SPS Agreement[14] – to adopt exceptions to free trade for the protection of health. In this regard, the presence of a standard and adherence to it through national regulatory measures make it possible to derogate from the rules of the liberalisation of free trade worldwide simply by reference to that standard: it is a presumption of compliance wherein national measures are considered automatically consistent with the WTO's binding rules. On the other hand, if a more restrictive measure of the standard has been chosen, a scientific demonstration will have to be offered to show why this has been done, with the possibility of being called before a dispute

[12] Most recently on the issue, see M Eliantonio and C Cauffman (eds), *The Legitimacy of Standardisation as a Regulatory Technique a Cross-disciplinary and Multilevel Analysis* (Cheltenham, Edward Elgar 2020).

[13] Concerning the participation in the CAC's activity, the official data reveal the presence of "187 Member Countries and 1 Member Organization (EU) and 219 Observers of which 56 are intergovernmental organizations, 147 non-governmental organizations and 16 United Nations agencies"; FAO/WHO, *The Science of Food Standards: The Road from Codex Alimentarius Commission 39 to 40* (Rome, Food and Agriculture Organization of the United Nations and World Health Organization 2017) p 2.

[14] The Agreement on Sanitary and Phytosanitary measures (SPS Agreement) was signed in Marrakech in April 1994 under the WTO's Founding Treaty and came into force on 1 January 1995 (the text is available at <http://www.wto.org/English/tratop_e/sps_e/spsagr_e.htm> (last accessed 27 August 2020)). It sets out the rules that States can legitimately adopt to restrict the global market for reasons of the protection of human, animal and plant health, which also affect food products. It applies to all health and plant protection measures relating to the trade in goods (Art 1), specifying the necessary requirements (shown in Arts 2–11) for such measures to be allowed. It allows Member States to choose the disciplines to be adopted in order to pursue the most appropriate level of health protection, provided that they are justified by an international standard or an appropriate scientific survey (Arts 3 and 5) and are adopted in accordance with the appropriate formal guarantees (Arts 6–11).

resolution body to justify the divergence from the rules of international trade. This gives standards considerable binding force, even if factual and indirect.

The rigidity of the standards-based harmonisation system can create conflicts due to different interpretations as to whether products and substances are truly risky or not. This has actually happened in some of the most controversial and debated cases.[15] Nevertheless, above all, we need to think about the aims for which standards are adopted and the level of safety that is transfused in them, as balanced with the protection of international trade. The objectives of the CAC are contained in Article 1 of the Statutes,[16] where what is indicated in letter (a) is of particular relevance: "protecting the health of the consumers and ensuring fair practices in the food trade".[17]

Consumers' health protection, set out as one of the CAC's primary objectives, provides for forms of prevention and management of possible risks to avoid harm to consumers' health, but it must be balanced against the other fundamental, complementary and linked objective of ensuring fair practices in the food trade.

With regard to health protection, the scope of the CAC's measures must be framed within a proper interpretation of such words. In fact, the specific and exclusive reference to the category of "consumers" excludes the protection of health in general from the aims of the CAC. As reported in the aforementioned norm, the reference is to the final users of an asset (food), recognised as such and chosen for certain characteristics that it must inevitably possess. This has various consequences.

Firstly, the standards refer not only to the integrity of a substance, but also to the composition of a product in relation to its commercial name, to the labelling of certain foods[18] and, in general, to consumers' trust and consumers' information about ingredients and ways of production.

Secondly, the consumer reference excludes all safety standards regarding any harmful effects that can occur *during* production, transport or sales processes and is limited only to the stage of food ingestion. This reduces the scope of these rules, which, for example, do not deal with the use of pesticides or breeding techniques – except with regard to residues left in food – or with cases of the spread of contact or airborne diseases.

A third important aspect concerns the effectiveness of the standards: they will have, as final recipients, not only the nation states that will be required to comply with them, but also the individual producers of specific foods and the generality of the world's

[15] Among the most debated standards, few have to be mentioned: the one on growing promoter hormones in cattle meat <http://www.fao.org/3/v7950e/v7950e00.htm> (last accessed 27 August 2020), that on foods derived by biotechnology <http://www.fao.org/3/a1554e/a1554e00.htm> (last accessed 27 August 2020), the standard on mineral waters <http://www.codexalimentarius.net/download/standards/223/CXS_108e.pdf> (last accessed 27 August 2020) and that on aflatoxins in milk <https://www.researchgate.net/publication/281175338_GENERAL_STANDARD_FOR_CONTAMINANTS_AND_TOXINS_IN_FOOD_AND_FEED_CODEX_STAN_193-1995_Adopted_in_1995_Revised_in_1997_2006_2008_2009_Amendment_2010_2012_2013_2014> (last accessed 27 August 2020).

[16] The rationale, objectives and rules of functioning of the CAC established with the Food Standards Programme are contained in the Procedural Manual, modified and updated several times and now in its 26th version: Joint FAO/WHO Food Standards Programme, Codex Alimentarius Commission, *Procedural Manual*, 26th ed., Rome, 2018 <http://www.fao.org/documents/card/en/c/I8608EN/> (last accessed 27 August 2020).

[17] ibid, p 4.

[18] Codex Alimentarius Commission, *Codex Guidelines on Nutrition Labelling*, CAC/GL 2-1985 (Rev. 1 – 1993); *Codex General Standard for the Labelling of Food Additives when Sold as Such*, CODEX STAN 107-1981; *Codex General Standard for the Labelling of Prepackaged Foods*, CODEX STAN 1-1985 (Rev. 1 – 1991).

consumers. In this sense, it should be noted that the reference to the health of consumers could weaken the judicial protection of their rights: consumers can act indeed as owners of collective rights, while health protection is in itself a fundamental and human right, as well as a duty for any governing body.[19]

With regard to the second aspect of the objectives of the CAC, namely the fairness of trade practices, which standardisation aims to achieve by preventing states from using consumer protection as a pretext for protectionist practices, an interpretation of the term "fair practices in trade" must be provided. The phrase, translatable to "correct (or just) commercial conduct", is, at present, susceptible to receiving various readings, because the term "fair" has more than one meaning. Among them, it seems consistent to qualify the adjective "fair" as "legitimate": that is, not contrary to the rules governing the matter of trade in international law. The "legitimate trade practices" are therefore those that comply with the rules and principles contained in the relevant legislation, which, in this case, consists of the Marrakech Agreements (ie the treaties governing WTO law).[20] As far as it concerns food safety, this means respect for the norms foreseen by the SPS Agreement.[21] The confirmation of such interpretations is to be found in the recall, by such a Treaty, of CAC standards.[22]

The CAC, in accordance with the principles of its Statutes and with those indicated by the SPS Agreement, issues specific and detailed rules defining, case by case, when products or substances have characteristics and requirements that are considered risky and not unduly restrictive to trade. The CAC's work ensures that Member States' food safety measures do not become an unjustified pretext for surreptitiously restricting national markets: consumer health protection, however paramount, cannot be used to limit the trade in food if there is no real justification for such a limit (referring to CAC standards or scientific demonstration of risk).

The two objectives are functionally linked and interdependent: the pursuit of health protection must be balanced with the compliance with the trade rules contained in the Marrakech treaties. The harmonising of interests, therefore, actually takes place in the process of drafting and approving standards and not at the time of their

[19] The limits of the statement contained in letter (a) of Art 1 of the Statutes were also noted by an assessment of the activity of the CAC, carried out by a group of experts in 2002 (FAO/WHO, *Report of the Evaluation*, cit., p 3 e ss.). These, in particular, have highlighted shortcomings and inefficiencies in protecting the health of consumers. The report states that this purpose should have a dominant and prevalent protection over the other interests at stake: either through a reworking of the CAC's mandate or by prioritising higher standards directly aimed at health protection objectives, rather than those aimed at harmonising trade: "It is important that a comprehensive and clear mandate be developed for Codex and ratified by the FAO Conference and the World Health Assembly. The mandate should be quite simple, for example: The formulation and revision of international standards for food, in collaboration with other appropriate international organizations, with priority to standards for the protection of consumer health while taking into full account the needs of developing countries" (ibid, pp 28–29).

[20] One of the most problematic elements of the functioning of the WTO is its systemic nature, characterised by scarce transparency in decisions and the sectorality of the interests it looks after. The rules set up to limit trade are contained in the Marrakech agreements establishing the WTO: it is through these legal texts that the Member States have drawn up the principles and rules governing the fairness of trade, identifying cases where it is permissible to restrict such activities. Although WTO law is not closed to general international law, in its twenty-five years of life, the institutional bodies of such an organisation have rarely been open to non-WTO criteria to establish the correctness of the trade practices put in place by the Member States, referring instead almost exclusively to the provisions of the framework agreements.

[21] Supra, note 14.

[22] The SPS Agreement, besides the general recall of Art 3, specifies in ANNEX A that the admitted standards for derogating SPS provisions are, among others, those of the CAC.

implementation at home by nation states: this will make them immediately compliant with WTO law and, therefore, recallable from the latter.

The rationale of the second part of Article 1, however, not only has the consequence of placing a limit on the function of health protection (or – to put it better – its unjustified use), but also has the effect of limiting the pursuit of this objective to demonstrations and regulatory limits contained in heterogeneous treaties established with the aim of ensuring and fostering different interests, often conflicting with the protection of health, such as the freedom of international trade.[23] The regulatory apparatus of the CAC draws its legal strength from WTO rules and is conditioned by the latter because the issuing of standards is functionalised to prevent health protection from becoming a market restriction technique, but it is not aimed at protecting health itself: "Codex has no public health mandate to which it must conform its decisions".[24] The presence of a dual general purpose, which is divided into the pursuit of two potentially conflicting objectives, has the effect of disempowering health protection from the beginning of the regulatory process.

That said, recent experiences, as well as earlier ones, would suggest a paradigm shift in the aims of the CAC. This, as a complementary and linked regulator to the WTO, should become a subject in a dialectical position – almost opposed – to that of the latter, with a relationship of dependence and parentage exclusively with the WHO. This should result in a genuine institutional reform of the current system, which will be taken into account in Section V.1.

III. The precautionary principle and its opponents

The precautionary principle is commonly adopted and observed in the EU and its Member States by recalling environmental and food safety legislation and Treaties.[25] Nevertheless, this principle does not enjoy the same standing beyond Europe's borders. Some countries, including the USA, do not recognise it, and the international treaties that mention it[26] are not able to guarantee its actuation when health protection

[23] The SPS Agreement is seen as a treaty aimed at preventing trade from being reduced for protectionist reasons. It is an agreement that is part of the project that gave birth to the WTO and therefore aims to develop world trade and open up markets, but it considers the regulation of this sector only as a limited exception in some cases. It has been said that such an agreement is "an international treaty with obligations and equally important rights. It must take account of both interests in favour of trade liberalization and legitimate interests justifying trade restrictions. The obligations of WTO members to liberalize trade cannot systematically prevail over the rights of WTO members to restrict trade"; J Pauwelyn, *Conflict of Norms in Public International Law: How WTO Relates to Other Rules of International Law* (Cambridge, Cambridge University Press 2003) p 198.

[24] LM Wallach, "Accountable Governance in the Era of Globalization: The WTO, NAFTA and International Harmonization of Standards" (2002) 50(4) University of Kansas Law Review 823, p 829; "At the moment Codex does not have a formal mandate. Rather, the Codex Alimentarius Commission and its subsidiary bodies (the Codex committees, task forces, etc.) are by statute purely advisory", in Joint FAO/WHO, *Report of the Evaluation*, cit., p 28.

[25] Art 191 of the Treaty of European Union <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:12008E191:EN:HTML#:~:text=1.,pursuit%20of%20the%20following%20objectives%3A&text=It%20shall%20be%20based%20on,that%20the%20polluter%20should%20pay.> (last accessed 27 August 2020).

[26] See, for example, Art 15 of the 1992 "Rio Declaration on Environment and Development", adopted by the United Nations at the Conference on Environment and Development (UNCED) and signed by more than 170 States, and Art 10 of the Cartagena Protocol of the Convention on Biological Diversity, which came into force on 29 December 2003. In this regard, it must be said that certain definitions of international law, such as the one referred to in Art 15 of the Rio Declaration on the Environment, have no binding value for the States.

and other concurrent interests, such as economic and commercial ones, enter into conflict. Among the various regulatory regimes that do not accept a precautionary approach, there is the WTO, which does not justify derogation to free trade grounded on precaution.[27]

For the purpose of its increased dissemination, it must be said that there is still no single legal definition of the precautionary principle, and its application has long been the subject of discussion:[28] namely, there is debate about the content of such a principle, which is considered too indeterminate, and about the requirements necessary for it to be invoked, which would not be enough to avoid disguised protectionism.[29] However, the use of precaution in public policies can be defined as the possibility of adopting a provisional measure (therefore limited to a certain period of time) aimed at preventing risk to health or the environment (eg by denying a license, seizing products or imposing restraints on economic activities) on the basis of scientific assessments of an uncertain and inconclusive nature that highlight a *possibility* (but not a *probability*, much less a *certainty*) that the risk will occur. The same measure must be reasonable, consistent with the investigation on which it is based – hence with the technical evaluations carried out – and proportionate; that is, aimed at creating as little loss as possible for those affected by it.

On the basis of this principle, therefore, a public authority can justify its own regulatory and restrictive decision without having to scientifically prove that there is a causal link – a rational relationship – between the prohibited or limited good or activity and the feared

[27] According to the WTO's founding treaties, goods must be able to circulate and be traded on a global scale without any protectionist limits. Among the exceptions that States – therefore public regulators and public administrations – can apply for limiting access to their territory of products deemed risky are those to protect the environment and human, animal and plant health. These, however, are interpreted narrowly, and States are required to provide scientific evidence of a risk that is at least "likely" for products they deem harmful and to which they wish to apply restrictive measures. In this demonstration, which places the burden of proof on behalf of the State that wants to protect health or the environment, the use of precaution is not permitted. In this sense, see two decisions of the WTO's Dispute Settlement Body: *EC – Measures Concerning Meat and Meat Products*, WTO Appellate Body Report 1998, WT/DS 48/AB/R and *EC – Measures Affecting the Approval and Marketing of Biotech Products* (WT/DS/291, 292 and 293), *Reports of the Panel*, Geneva, 29 September 2006.

[28] RB Stewart presents four versions of the precautionary principle, as depicted by the legal science. Among these, two follow a more radical approach, while the other two follow a more flexible one: "1) scientific uncertainty should not automatically preclude regulation of activities that pose a potential risk of significant harm ...; 2) regulatory controls should incorporate a margin of safety, activities should be limited below the level at which non adverse effect has been observed or predicted ...; 3) activities that present an uncertain potential for significant harm should be subject to best technology available requirements to minimize the risk of harm, unless the proponent of the activity shows that they present no appreciable risk of harm ...; 4) activities that present an uncertain potential for significant harm should be prohibited, unless the proponent of the activity shows that they present no appreciable risk of harm"; RB Stewart, "Environmental Regulatory Decision Making under Uncertainty" in T Swanson (ed.), *Research in Law and Economics*, vol. 20, *An Introduction to the Law and Economics of Environmental Policy: Issues in Institutional Design* (Bingley, Emerald Group Publishing Limited 2002) p 76.

[29] Although some discrepancies in the legal status and in the circumstances justifying the implementation of the precautionary approach have reduced significantly, maintaining the uncertainty of its content is actually a positive element: the principle under consideration does not identify measures that fall under the precaution, but sets the conditions for it to be applied, thus inviting decision-makers to consider on a case-by-case basis whether to resort to a prudent choice or whether to accept the risk. "The indeterminacy of the precautionary principle is not a deficit but an advantage, and propose an account of the principle as guiding a reasoning process. ... As such, the precautionary principle invites decision-makers to search for alternatives and better grounds for justifying regulatory responses to hazard"; A Herwig, "The precautionary principle in support of practical reason. An argument against formalistic interpretations of the precautionary principle" in C Joerges and E-U Petersman (eds), *Constitutionalism, Multilevel Trade Governance and Social Regulation* (Oxford, Oxford University Press 2006) p 303.

risk: being able to simply prove that, on this issue, the science is uncertain and that a possibility of the risk exists.

It is often affirmed that the precautionary principle necessarily requires institutions to choose the most prudent path, perhaps with crippling effects on development. The principle is considered by some to be too demanding because in every human activity there are always potential and imponderable risks, which could see even relatively safe activities prohibited, since no human action is at zero risk. Others still see it as an alternative criterion to science, based on an ideological and non-objective approach. Finally, others identify it in a principle that automatically puts environmental protection over other interests.

All of these interpretations should be re-examined.

Firstly, the precautionary principle does not impose obligations: in the rules that foresee it, temporary risk management measures based on precaution "may be taken" by the relevant authorities.[30] The principle is thus an option for regulators to make a cost–benefit analysis and have the possibility to make a prudent choice if the conditions provided by the precautionary principle apply.[31] The principle at stake does not force – acting as a prescriptive rule – a mandatory prudence inclined to generate protectionism, but it does provide for an increment in the legitimate discretion of decision-makers, which allows them also to consider a precautionary alternative, justifying the final choice in an appropriate manner and according to predefined procedural criteria.

Secondly, the principle is not aimed at removing the risk, but at reducing it. Precautionary decisions must be reasonable,[32] proportionate[33] and adequately motivated:[34] if these

[30] See Art 7 of Regulation (EC) 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety.

[31] In this regard, there has been a fear of the harmfulness of a principle that, in all cases of uncertainty, requires the authorities to necessarily adopt a restrictive approach geared towards what is called the "worst-case scenario" (RB Stewart, *Environmental Regulatory Decision*, cit., p 72 et sqq.). Such an interpretation, as can be understood, is capable of causing a paralysis of trade and a reversal of the trend in the development of the free market, orientated to protectionism. However, in European law, the principle under consideration does not act as an imperative rule, but rather as a general principle of an attributive nature, which allows greater decision-making discretion to the competent authorities and is functionalised to prevent arbitrary decisions on uncertain situations. In this sense, see P Craig, *European Administrative Law* (3rd ed., Oxford, Oxford University Press 2018) p 747: "The explicit recognition of the Precautionary principle within the EU law has led … to increased judicial emphasis on scientific method as a means of ensuring non-arbitrary decision-making". See also E Fisher, *The Precautionary Principle, Administrative Constitutionalism and European Integration* (Oxford and Portland, Hart 2007) p 2.

[32] In risk regulation, competent administrations issue measures constrained by technical assessments, but when the latter are not adequate and the possibility of a risk still occurs, the administrations themselves will be able to issue a discretionary and informed decision to prudence, and they will also have to justify it by reasonableness. This concept supports a decision made according to a rational assessment of the potential risks (ie an "*appréciation raisonable*"; N De Sadeller, *Les principles du polluer-payeur, de prevention et de précaution* (Brussels, Bruylant 1999) p 155), which considers and takes into account all of the facts, risks and interests involved. On this, see, in particular, F De Leonardis, *Il principio di precauzione nell'amministrazione di rischio* (Milan, Giuffrè 2005) p 129 et sqq. and passim.

[33] The concept of precaution is inextricably linked to that of proportionality, especially since both provide a considered and discretionary choice for identifying the most suitable measure for protecting a certain legal expectation and because both provide a cost–benefit analysis and an assessment between risk acceptance and prudence. According to one theory, the precautionary principle would be a derivation of the proportionality one: F De Leonardis, *Il principio*, cit., p 151 et sqq.; F Ewald, "Philosophie politique du principe de précaution" in F Ewald, C Golliers and N De Sadeleer (eds), *Le principe de précaution*, Colecciòn Que sais-je? (Paris, PUF 2001) p 56, stating: "*le principe de precaution est indissociable du principe de proportionnalitè. Il repose sur un art des pondérations*".

[34] For precautionary measures, as in all others, there is also the obligation to explain the required reasons for a number of acts adopted by public institutions: in EU law, for instance, the obligation for EU institutions to justify their acts finds its main legal source in the provision of the current Art 296, para 2, TFEU and Art 41 of the Charter of Fundamental

characters are missing, a judge can nullify them. The presence of these criteria excludes the possibility that prudence may be invoked for trivial reasons, inconsistently or disproportionately in the relationship between the risk and the adopted measure.

Thirdly, precaution is not an alternative to technical–scientific assessments, but consequential to these, when they are unable to provide certain and reliable answers. Only in this case does political discretion – understood as a considered choice of subjects responding to an electorate or in front of other bodies – regain strength by exercising the power (for which it is responsible) to choose whether and how to decide.[35]

Finally, despite the precautionary approach naturally belonging to the *rationale* of sustainable development[36] and therefore as a legal tool to protect the environment, it indeed works as a general and meta-procedural principle that enlarges the discretion of competent administrative authorities, allowing them to have an extra choice and to motivate it on prudence, in front of possible and uncertain risk.[37] Despite the fact that the precautionary principle was born[38] and is directed to environment and health protection (its main areas of application), it does not necessarily produce decisions with those effects: it is a tool, in the hands of public authorities, to be used with those purposes.

Beyond any prejudices against this principle, there is, as has been said, some resistance to its use on an extra-national and non-European scale. This approach is explained by the intention of avoiding protectionist measures disguised as attempts to protect health. Nevertheless, this is too negative a view of the precautionary principle. On the contrary, the EU experience is crucial in changing this evaluation: it is precisely the EU legislation – based on a common market, requiring scientific demonstrations for trade-restrictive measures and inspired by legal harmonisation – that places an important emphasis on precaution, without suffering negative consequences on free trade. In cases where scientific uncertainty does not allow for a full assessment of the alleged risks, it is up to risk managers (and not risk assessors – ie the experts who have assessed it, without producing reliable results), through their discretionary weighting and within the limits of the precautionary principle, to determine what is the quantity or quality of risk that society is able to bear[39] – even at the expense of

Rights of the European Union, which, after a general statement on the right to a good administration, expressly establish, at para 2, the duty for EU administrations to justify their decisions.

[35] As noted, thus precaution does not mean absolute freedom of decision, but a careful evaluation of all of the reasonable parameters for the sake of the citizens.

[36] Besides the Treaty on the European Union (TEU), the precautionary principle has been recognised by the United Nations as a principle of sustainable development: UN Doc. A/57/329, *New Delhi Declaration of Principles of International Law Relating to Sustainable Development*, 31 August 2002.

[37] As indicated by the General Attorney, in the Monsanto case, "the precautionary principle represents ... a principle of action in cases where a risk may eventually emerge", Case C-236/2001, Monsanto, cit., *Opinion of Advocate-General S. Alber*, 2003, § 108. On the precautionary principle as a criterion allowing more discretion, embedding the decisional moment without imposing any decision towards a limit of the market, see J Cazale, "Food Safety and the Precautionary Principle: The Legitimate Moderation of Community Courts" (2004) 10(5) European Law Journal 539.

[38] "The precautionary principle has its beginnings in the German principle of Vorsorge, or foresight. At the core of early conceptions of this principle was the belief that society should seek to avoid environmental damage by careful forward planning, blocking the flow of potentially harmful activities"; J Tickner, C Raffensperger and N Myers, *The Precautionary Principle in Action: A Handbook* (1st ed., Eugene, OR, Science and the Environment Health Network 1999) p 2.

[39] "It is generally accepted that defining the level of acceptable risk is a normative decision that belongs to the democratically elected and accountable institutions of a State"; T Christoforou, "The Regulation of GMOs in the EU: The Interplay of Science, Law and Politics" (2004) 41 Common Market Law Review 647, p 702. See also the

the free movement of goods, as long as the application of this principle is surrounded by the guarantees already described in the previous paragraphs.

Hence, as will be discussed below (Section V.2), it is suggested that the precautionary principle will be more widely disseminated and applied globally, obtaining the implementation methods, the discipline and the limits to its use precisely by EU law.

IV. Traceability, compulsory labelling and controls on food safety

The aim of increasing and improving food safety regulation systems on a global scale (ie with reference to global institutions, but also widely, in different countries) should be based on the development, better application or reform of several regulatory instruments already in place but still not sufficiently effective and efficient. Above all, as the core of such a regulatory sector is the enhancement of public policies directed to the prevention of diseases through safer nutrition, improvements must involve two strategic regulatory tools in addition to those already mentioned in the previous paragraphs: mandatory labelling and controls by public authorities.

Labelling is an instrument of regulation that is essentially based on knowledge and the decrease of so-called information asymmetries between producers and consumers, with a considerable amount of data indicated on the various food packages. It is a less incisive measure of bans, prohibitions or seizures, but – particularly in the case of mandatory information to be labelled – it is able to reduce health risks, although still with a restrictive effect on the marketability of a product. At the same time, at an empirical assessment, labelling as an instrument of regulation, although widely used, has so far proved not to be very effective. This is because it has to be combined with the high awareness of consumers, who should spend more time reading the labels, assessing the information reported on the basis of their knowledge and weighing such assessments against those of convenience, concerning the prices of the goods to be purchased.

Nevertheless, with a view to strengthening the protection of health against harm from food products, the power of labels should not be underestimated. However, they must be used more forcefully and radically through a series of measures, which will be described below (Section V.3) and will briefly be outlined here.

Firstly, there must be an increase in the mandatory information to be borne by the producers. These must make visible, *inter alia*, whether aggressive, artificial, potentially polluting or harmful substances (even indirectly) to health are present or have been used during production.

Secondly, the traceability of each food must be complete, exhaustive and clear, with indications of the places where the food was produced, processed, altered, packaged, stocked and finally sold wholesale or retail.

Finally, the use of marks and label markings can make it easier to identify a food with a place of origin. This type of practice must be encouraged and enhanced in order to

Communication from the Commission on the precautionary principle, COM/2000/0001 final, p 8: "When there are reasonable grounds for concern that potential hazards may affect the environment or human, animal or plant health, and when at the same time the available data preclude a detailed risk evaluation, the precautionary principle has been politically accepted as a risk management strategy in several fields".

promote quality and territory-related productions, because they not only improve the sensory richness of a product, but indirectly also protect health by spreading foods that, because of their characteristics, should undergo less alteration with potentially harmful or non-natural products.

Another adjustment measure that needs to be enhanced is public controls on food productions and sale. These represent a crucial factor in food safety governance, and if we look at them on a global scale, there is an undeniable excessive fragmentation between the models adopted in various countries – with all of the differences concerning their efficiency and effectiveness. As the case of COVID-19 has perfectly demonstrated, if national and local product safety checks are not carried out correctly with the right frequency and with the ability to effectively impact food health guarantees, the common standards, norms and institutions aimed at protecting food safety risk losing incisiveness in achieving the objectives for which they had been drafted.

In this regard, in order to envisage a common and extensive comprehensive discipline of food safety controls, it is useful to model the recent reform adopted in the EU: EU Regulation n. 625/2017,[40] concerning the official controls performed by States to verify the conformity to the EU norms in various sectors of food and feed production.[41] This model is based on a set of common European norms and executive and effective tools and powers on behalf of nation states.

V. The regulation of food safety after the coronavirus: four proposals for a change in risk prevention

As anticipated, the analysis carried out so far has identified some critical points regarding the current regulation of food safety. Based on these considerations, four concrete proposals are suggested to reform the governance of the sector according to a more careful vision for risk prevention and health protection.

The first has an organisational–institutional nature and consists of a reform of the CAC and of its standardisation system, with the aim of increasing global health protection without resorting to State instruments that would risk encouraging protectionism.

The second is meta-procedural in nature and informs the rules of the game for regulators: it concerns the worldwide dissemination and application of the precautionary principle as it is used and interpreted in the EU and its member countries.

The third has to do with the specific discipline of regulation and consists of a particular instrument for this purpose being made more effective: mandatory labelling. This must be imposed for a higher number of substances and must contain more and more detailed information than it has now.

[40] <https://eur-lex.europa.eu/legal-content/IT/TXT/?uri=CELEX%3A32017R0625> (last accessed 27 August 2020).

[41] These relate to, among others: the safety, integrity and salubrity of food and feed at all stages of the supply chain; the deliberate emission of genetically modified organisms into the environment for food and feed production purposes; animal health prescriptions for commercial marketing and the use of plant protection products and the sustainable use of pesticides; organic production and labelling of organic products; import and export of food and animals; and the use and labelling of indications and designations of origin.

Finally, the latest proposal concerns a further aspect of the regulatory framework of food safety: namely, the system of controls. The proposal aims to set up a common model with rules and procedures shared on a global scale and executive activities on the territories, entrusted to the domestic authorities.

1. A new Codex Alimentarius Commission

As has been seen, at least in the fundamental objectives set out in the CAC's Statutes, the latter has proved to be too conditioned by the WTO. It was also noted that the current global regulation of food safety presents an imbalance between health and free trade, for the benefit of the latter.

All of this suggests that the CAC should no longer be a standard-setter aimed at facilitating international trade – already fostered elsewhere – but one exclusively aimed at protecting health, which allows regulators to determine when, how and why the market for agro-food products can be closed or restricted for health reasons. In this way, the two regulatory systems would continue to be connected, but according to a horizontal design and not in a position of dependence, thus entering into a dialectical relationship to balance the different interests whose care is entrusted to them. The result is a paradigm shift for the CAC itself, which should only maintain one of its two fundamental objectives (ie to adopt standards on agro-food products in order to achieve a high level of protection of human health).

The clear distinction between the CAC and the WTO – which would not constitute a complete separation between the two governance systems – would create a form of dialogue of opposing terms between two global regulatory regimes, promoting a fair balancing between the different objectives and interests involved, which would "play on the same field".[42] Moreover, the exemptions to free trade decided by the international community would be legitimised as not being derived from the protectionist arbitrariness of States, but decided on a global level. Finally, they would help to mitigate the current imbalance of global regulation, which is overly focused on freedom of trade and less on the protection of the weak and social interests (health, environment, social rights, welfare state, protection of workers, etc.).[43]

From an organisational point of view, the solution could be found in the incorporation of the CAC within the WHO's system alone. The CAC, therefore, would become an executive body controlled only by the WHO, attended by national delegates and

[42] This would be a very effective dialectic mechanism between regulatory systems, which would not belong to the same regime, but to two different and contrasting circuit models of interests. These would, however, be linked to the result of exchanging legal force with each other, but in a dialectical position, in order to legitimise and balance each other out thanks to the heterogeneity of the legal assets represented, thus giving rise to an institutional balance aimed at tempering the interests involved and ensuring guarantees of impartiality in decisions.

[43] The literature on the imbalance between free trade and other interests in global regulations is quite wide. Among others, see M D'Alberti, *Poteri pubblici, mercati e globalizzazione* (Bologna, Il Mulino 2007) p 116 et sqq.; J-B Auby, *La globalisation, le droit et l'Ètat* (Paris, LGDJ 2010) p 67 et sqq.; LM Wallach, *Accountable Governance*, cit.; D Bevilacqua, *Il free-trade e l'agorà. Interessi in conflitto, regolazione globale e democrazia partecipativa* (Naples, ES 2012), passim.

based on independent scientific studies. It would be dedicated to identifying standards exclusively aimed at the protection of health in general – without the limitation of the consumers' category – and directed at allowing the waiver of the rules of free trade whenever this is deemed necessary or appropriate.

While the CAC is essentially embedded in the WTO system, the WHO has so far developed itself as an autonomous regulation regime, with heterogeneous purposes and functions to those attributed to the CAC.[44] For this reason, and precisely as it is isolated from other international organisations, the WHO is a paradigmatic case for understanding the potential of "complex regimes"[45] and of the balance between different systems for the sake of a composition of interests in the non-national context. While the multipurpose nature of the FAO and CAC leads to an absorption of these interests into the macro-sectors of agricultural development and world trade, in this case there would be a dialectic between two regulatory regimes based on the production of health standards – which the WTO should also recognise as fully legitimate – having the legal strength and technical characteristics to operate as exemptions, exceptions or counter-limits to free trade.

2. The global precautionary principle

A second reform proposal concerns the dissemination and implementation, on a global scale, of the precautionary principle. With regards to what has been said above (Section III), it must be considered desirable – as well as theoretically possible in a strictly legal way – also to affirm the principle at stake in extra-European law. Global institutions could get the same principle out of EU law, but this innovation, it must be said, depends essentially on the contingent political will. For example, it should be the representatives of the governments who agree to a more precautionary change in the treaties governing the various subjects on a global scale – above all trade.

Current resistance is understandable, given the potential abuse of the suggested tool for implementing protectionist practices. Nevertheless, there are at least three reasons in favour of its use on a global scale.

First is its well-functioning in the EU legal order. To date, the precautionary principle has been used by the Union's institutions and by the Member States in a widespread way in various matters, such as the environment or health protection. The Court of Justice is called into question if the precaution is unlawfully or disproportionately used and may nullify the measures based on those foundations,[46] while the common market continues

[44] There is no possibility here to deepen and develop a reasoning on the functioning and guarantees of accountability and legitimacy of the WHO and therefore of the CAC. However, it is necessary to point out a caveat regarding the particular vulnerability of all international organisations and therefore the need for them to be regulated with strict legal mechanisms that increase transparency and accountability to achieve a greater level of fairness and impartiality than the current one.

[45] The so-called "complex (or connecting) regimes" consist of functional linkages between different organisations, which compose complex systems of regulation and create a dialogue among a plurality of general interests, increasing the power of the involved organisations. See DW Leebron, "Linkages", opening speech at the conference "The Boundaries of the WTO", now in American Journal of International Law, 96, 2002, p 14; S Battini, "Il sistema istituzionale internazionale dalla frammentazione alla connessione" (2002) 12(5) Rivista Italiana di Diritto Pubblico Comunitario pp 985; S Cassese, *Il diritto globale*, cit., pp 25, 96, passim.

functioning on a regular basis, without the principle giving rise to protectionist mechanisms between Member States.

The second is the need to increase health protection – on a global as well as a national level, even if it is in conflict with common standards. This approach would also trigger virtuous circuits, so that the precautionary resistance of one State would push others to increase their levels of protection. Although, as it was said at the start of this paper, events such as pandemics need a global response – in outbreak management as well as prevention – giving individual States the tools to impose an increase in health protection can have a positive effect not only within domestic systems, but also on common regulations.

Finally, the desire for greater discretion by national administrations would be a strong deterrent to the most radical protectionist movements, which would see a weapon weakened to challenge and counter global policies with illegitimate trade barriers (perhaps accepted by other international actors because of the geopolitical weight of those who implement them). Thanks to this principle, in fact, the national authorities could derogate from the common rules in the face of sensibilities, visions and approaches that are different from global ones – and with reference to sensitive and fundamental issues such as the environment and health – but only within the limits of a codified principle for which conditions, procedures and formalities are required. There is an increase in powers allocated at the domestic level, but it is contained. In the face of this, the ideological resistance to globalisation would have one less argument to use for its goals.

The application of the precautionary principle at the global level, qualifying as a decision-making criterion that can be used in certain areas (health, environment, etc.) only as a result of uncertain technical assessments, would constitute an important legal innovation to promote the protection of certain interests, balancing the harmonisation needs of supranational rules with the risk-regulating needs adopted at home, thus offering national administrations an extra weapon in the prevention of pandemics or other diseases. Hence, the centrality of the precautionary principle is evident: by ensuring rule-makers a more prudent and more interest-based decision-making alternative, it would produce a stronger and more effective protection of underrepresented goods and values such as the environment, biodiversity and health.

3. Compulsory labelling and traceability

The third proposal for reform of the food safety sector has to do with labelling, particularly mandatory labelling, and it links to the traceability and geographical identification of food. In this regard, three actions are suggested.

[46] The EU judicial history on the precautionary principle is wide. Among others, see the interpretations given in: ECJ, Decision of the 12th March 1987, Case 178/84, *Commission-German Federal Republic*, p 1274: "In so far as there are uncertainties at the present state of scientific research, it is for the member states, in the absence of harmonization, to decide what degree of protection of the health and life of human they intend to assure"; ECJ Decision of the 17th January 1991, Case C-157/89, *Commission-Italy*; ECJ Decision of the 19th January 1994, Case C-435/92, *Association pour la protection des animaux sauvauges*; ECJ Decision of the 3rd December 1998, Case C-180/96, *Commission-UK*, particularly at para 99: "Where there is uncertainty as to the existence or extent of risks to human health, the institutions may take protective measures without having to wait until the reality and seriousness of those risks become fully apparent"; ECJ Decision of the 24th October 2002, Case C-121/00, *Reference for a preliminary ruling: Bezirksgericht Innere Stadt Wien – Austria*.

Firstly, certain food production techniques, which at present do not receive adequate publicity, must be made mandatory, explicit and simplified on labels: if a meat product comes out of intensive breeding; if genetically modified organisms have been used; if chemical herbicides have been used (eg glyphosate[47]); if artificial preservatives or dyes have been used, etc. This type of guidance certainly comes at a cost to the biggest food producers, who may see their market damaged by the distrust of consumers regarding their goods. However, the obligatory use of this instrument encourages the use of agricultural techniques that are more environmentally friendly and the consumption of organic or otherwise more natural products, with a rebalancing of the agro-food market, which is currently in favour of large production and agro-industry, despite the proven advantages of small-scale, family and organic agriculture.[48]

Secondly, labels should reconstruct the whole supply chain in a truthful and easily readable way, explicitly indicating the origin of the products and where they were cultivated, treated, processed and packaged. This second element of the labelling tool has a specific advantage that is consistent with the market economy system in which we live: to put States and their safety and quality control systems into competition, with a race-to-the-top effect. If – as the recent experience of COVID-19 has shown – the provenance of products from certain countries can affect their consumption (due to distrust in the control and regulation systems of some States), mandatory traceability will prompt rule-makers to implement governance models as efficiently and effectively as possible, being able to facilitate the export of national food products and encourage the spread of "good practices". The rigour used in the traceability of the production chain generates competition between national regulators, with a trickle-down effect on the operators that are currently focused on the price, rather than the quality, of products.

[47] Glyphosate, a herbicide that is widely used on genetically modified Roundup soybeans, is freely used in Europe and other countries around the world. It is seen by many as a clear example of the successes of biotechnology (Monsanto Roundup/Glyphosate Background Materials <http://www.monsanto.com/products/pages/roundup-safety-background-materials.aspx> (last accessed 27 August 2020), but there is a strong debate on the issue. For instance, in 2017, the EU voted in favour of its license renewal, with the objective to ban the glyphosate in 2022 <https://ec.europa.eu/food/plant/pesticides/glyphosate_en> (last accessed 27 August 2020). Moreover, the International Agency for Research on Cancer (IARC) of the WHO classified it as a carcinogenic agent <https://www.iarc.fr/featured-news/media-centre-iarc-news-glyphosate/> (last accessed 27 August 2020). See also D Cressey, "Widely used herbicide linked to cancer" (24 March 2015) <http://www.nature.com/news/widely-used-herbicide-linked-to-cancer-1.17181> (last accessed 27 August 2020).

[48] According to the International Fund for Agricultural Development (IFAD), small family farms dominate rural landscapes around the developing world, accounting for up to 80% of the food produced in Asia and Sub-Saharan Africa, while providing livelihoods of up to 2.5 billion people (S Bonny, "Corporate concentration and technological change in the global seed industry" (2017) 9(9) Sustainability 1632). The FAO estimates that more than 75% of the increase in crop productivity over the past thirty years is the result of plant farming, traditionally put in place by small farmers. The FAO also explains that, despite its commercial value, the industrial food chain produces only 30% of the global food supply, but uses 70% of the world's agricultural resources. In addition, 75% of agro-biodiversity has been replaced by a small number of genetically more uniform varieties. By contrast, smallholder farming and the peasant food network provides 50% of the world's cereals, 60% of the world's meat and 75% of the world's dairy products, while using only 30% of the world's agricultural resources (AM Loconto, OO AdeOluwa and Y Akinbamijo (eds), *Achieving Social and Economic Development in Africa through Ecological and Organic Agricultural Alternatives. Proceedings of the Plenary presentations of the 3rd African Organic Conference, 5–9 October 2015, Lagos, Nigeria* (Rome, Food and Agriculture Organization of the United Nations and African Union Commission 2018)).

Thirdly, the actual indication of provenance, if adequately guaranteed and protected from contamination and misleading information, may promote the excellence of certain products, anchored in specific geographical traditions and delimited to certain territories. This aspect – which can apparently be seen as a departure from the objective of "levelling the playing field", belonging to the globalised market based on competition with equal arms – serves to protect superior or specialised production methods and to encourage competition between producers aimed at raising quality (and not only lowering costs), with the effect of favouring healthier productions because they are preferable to standardised ones. Even if such special protection for geographically connected products already exists – for example, in protected designations of origin (PDOs) and protected geographical indications (PGIs) – the present system, despite developing well in Europe, is still not widespread worldwide, where quality products are often damaged by fraud, imitation or insufficient protection.[49]

These proposed changes may have some disadvantages, which must also be highlighted.

Firstly, readability: it is well known that too much information on the label is counterproductive. It is also necessary to study how certain indications are compatible with the knowledge of the average consumer, who does not have all of the tools to understand the consequences of ingesting certain substances. And yet, these very aspects suggest the importance of public regulation of the phenomenon: the institutions of global food security are called upon to involve experts in the various fields – not only those of the biological and medical sciences, but also those of communication, for instance – to identify labelling systems that are exhaustive, clear and effective.

Secondly, misinformation: there is inevitably the risk that untrue labels will change the message and have the exact opposite effect of what they were designed. This risk translates into a cost to public institutions responsible for the protection of food safety: public administrations must ensure – through indications, prescriptions,

[49] With regards to the protection of quality and territory-related food products, there is a very strong contrast of interests between countries that have a significant tradition in the production of locally characterised agro-food products and those that do not have a tradition of this kind. The latter, indeed, tend to favour their manufacturers who, taking as a model the products characterised by their origin, want to use denominations and symbols that recall the traditions from which they are inspired – being "commercially pulled" by them – thereby giving life to the phenomenon that, for Italian products, is known as "Italian Sounding". For example, in the USA, it is denied that geographical indications can be regarded as an intellectual property right, so that such assets lack public protection, whereas in the EU, this qualification is insured and serves precisely to grant full protection to such products. The conflict of interests just mentioned explains why the minimum standard of protection granted to these signs by the so-called TRIPS Agreement, launched in 1994 to coincide with the creation of the WTO in order to establish the protection of intellectual property rights in the participating countries, is still extremely low. The rules of the TRIPS Agreement, which generally cover geographical indications (Art 22), protect only against the deception of the public, while the use of them with the word "type", "mode" and "the like", which does not lead to deception regarding the origin of the product, but certainly involves a linkage to the reputation of the "original" product, is repressed only for wine indications, for which traditionally the level of protection is greater (Art 23). The Paris Convention on the Protection of Industrial Property – which the TRIPS Agreement expressly refers to – is also limited to sanctioning the "direct or indirect use of a false indication of the origin of the product" (Art 10). The Madrid Agreement of 1891 (which neither the USA nor Canada ratified) is a little more specific: besides prohibiting, at Art 1, the use of a "false or misleading" claim that directly or indirectly indicates a country that adheres to the Convention or a place included in it as the origin of products actually made elsewhere, Art 3-*bis* also prohibits the use of "any indication that is advertising and is such as to mislead the public about the origin of the products".

inspections and controls – that what is on the label corresponds to reality. And this type of activity requires significant resources and a comprehensive and shared organisation of controls. This second point will be discussed further in the following section, while the first point, being a matter of politics and not properly a legal issue, will depend on the open decisions of politicians in power from now on: the choice is whether to invest resources in this field, accepting the risk of unsatisfactory results or high costs, but with the opportunity to improve the current system.

4. A common system of food safety controls

Finally, with regards to the control system, it was anticipated that the aim of creating a common framework at a global level should follow the European pattern, contained in the EU Regulation n. 625/2017. This has the dual aim of rationalising and simplifying the regulatory framework on controls, incorporating different agro-food subjects into a single text and establishing a harmonised EU-wide discipline for organising these activities with reference to the entire food supply chain.

This model is an important paradigm for global food regulation. On the one hand, it maintains the regulatory discipline of agro-food in its harmonised and supranational nature,[50] and on the other hand, the execution of common rules – with a margin of discretion that may widen or narrow over time – occurs at the domestic level. This is coherent with the necessity of striking a balance between common and global prerogatives of a worldwide sector and the local components and interests related to food, which are strongly attached to territories and local traditions.[51]

In establishing a set of common rules to ensure that food and feed are safe and healthy, Regulation n. 625 recognises that Member States have the power to make this unified legislation effective, directly carrying out official monitoring activities (which also include inspection powers, formal verification, sanctioning, etc.). It is in fact the States themselves that designate the competent authorities to carry out the checks provided by the Regulation, since they are "in the best position" (*Considering* n. 26, Reg. n. 625) to make this choice.

The considered norm standardises the content of regulatory action in the sector, including the ways, procedures, powers and forms by which such action must be put in place (by supranational and national or local actors). In addition, organisational models are made common, giving rise to a network system in which competences, functions and certain modes of implementation and organisation are defined by the

[50] On this issue, see M Savino, "Autorità e libertà nell'Unione europea: la sicurezza alimentare" (2007) 2 Rivista trimestrale di diritto pubblico p 415 and the detailed reconstruction of A Alemanno, *Trade in Food: Regulatory and Judicial Approaches in the EC and the WTO* (Cambridge, Cameron May 2007) p 33 et sqq.

[51] As a result of the Europeanisation and globalisation of the food trade, the regulation of this matter is no longer exclusively national. Involving different international and supranational actors, holders of common regulatory functions and responding to shared principles and rules, food safety is now of extra-state importance and is disciplined by transnational rules aimed at regulating cases and behaviours that take place or produce effects on a global scale. Nevertheless, this regulatory activity is a subject that is at the same time very ingrained at the local level because of the inseparable cultural and territorial elements that characterise food and agricultural knowledge. Because of this, contrasts and dialectics stemming from different approaches adopted in the various legal systems that come into contact are not uncommon. See D Bevilacqua, *La sicurezza alimentare negli ordinamenti ultrastatali* (Milan, Giuffré 2012) p 15.

European discipline, while the nation states are in charge of actuation, in connection with each other and with the Union institutions.

The rationale – to be considered as a model for global regulation – is that of a common governance that manages to centralise the regulation of the sector and is able to strike a difficult balance between two fundamental – yet critical – prerequisites for a taut system: the preservation of the domestic policies on issues of varying sensitivity at the local level; and that of providing for common rules that allow for the uniform development of a strategic economic sector for the whole area, particularly in terms of trade. The discipline is therefore both multilevel, because it divides certain tasks between the Union and the Member States, and composite, because it affects all of the competent actors operating within a common system.

In addition, the choice to qualify controls as a "system", anchoring them to the need for compliance with Regulation n. 625, puts in place a model of network regulation, one that is, at the same time, supranational and transnational: the authorities operating in this sector not only respond to national policies and rules, but they are part of a system in connection with their counterparts in the other Member States and with the European Commission, in accordance with common principles and standards. To do this, they are called to adapt their organisational structures, functionalising them to the conduct of executive activities so that they are as consistent and in accordance with EU discipline as possible. The system is sectoral (only for agro-food), transnational (it brings all Member States together) and composite (it provides functions, powers, subjects and activities involving both the Union and the States). The implemented model is therefore a complex and multifaceted "common administrative system" consisting of heterogeneous bodies.

The European legislature has created a centralised system organised through a decentralised, coordinated and structured model according to a common design. The latter, however, does not determine the specific content of the control discipline, for which it makes a referral to the various substantive regulations, identifying shared principles, methodologies and procedures, which in turn are adopted as parameters for compliance checks on national authorities and operators. In this way, it functionalises domestic bodies to a harmonised European approach, leading to a simplification and speeding up of controls, in favour of greater efficiency.

The model maintains a reserve of local discretion without prejudicing common needs and establishes itself as a "partial denationalisation",[52] which makes up for differences in common purposes and subordinates administrative activity to complex guidelines and principles. Thus, it follows a design that is transnational, because it involves joint and linked action by national authorities; centralised and supranational, because aims, approaches, principles, rules and organisational models are established or influenced by EU law; and decentralised, since the enforcement of the controls and activities related to them is entrusted to the domestic authorities.

The system described above can also be extended on a global scale, because – as has been shown by the COVID-19 story – efficiency, effectiveness and consistency of food

[52] For a sociological analysis of the phenomenon, see S Sassen, *A Sociology of Globalization* (New York, W.W. Norton 2007) p 49 et sqq.

safety controls are fundamental conditions for ensuring health and thus preventing the spread of new pandemics and, at the same time, ensuring the functioning of the current model of trade on a global scale. In this project, the role of the EU and the CAC should be filled by the WHO, with a dedicated body within the WHO being responsible for coordinating and supervising national controls, as well as the dissemination of uniform rules to be adapted in order to implement the common model established at the global level.

As one of its various advantages, this system would have a double positive effect: when a country complies with the controls adopted by the common model, a safety patent is granted to the products it intends to export, with guarantees and useful and beneficial consequences both in terms of health protection and from a commercial and economic point of view.

VI. Conclusions

COVID-19, a disease thought to be transmitted from animals to humans, caused the 2020 pandemic that, at the time of writing, is still out of control in many parts of the world. There is strong evidence that the infected animals had been displayed in a market lacking hygiene standards and proper controls, to be sold as food. In a process known as zoonosis, the host animals passed the virus onto humans, who, in turn, spread the disease into the wider community. There is strong evidence that an unsuitable, insufficient, flawed and excessively permissive food safety system was the key to the original transmission of the disease. The consequences of that initial inadequate regulation have been felt everywhere – and not only in the village, region or state where the virus originated. To date, millions have contracted the disease, with hundreds of thousands of deaths having occurred worldwide.

This brief synthesis of the outbreak now called the coronavirus pandemic helps us to summarise some important points discussed in this paper.

Firstly, food safety plays a central role in protecting health: a good system of food safety regulation allows us to work on disease prevention, both by protecting and incentivising the production of healthy and quality foods and by ensuring the protection of health at all stages of the supply chain, from the first steps of production to the final consumption.

Secondly, the protection of food safety is a matter of global importance: a worldwide problem or phenomenon must be tackled on a global scale. In order to continue enjoying the comparative advantages offered by the international market, the present model of trade regulation must be equipped – more than it currently is – with common and harmonised rules and regulatory structures, establishing exemptions to that system and able to protect other interests within the global market, including those that may conflict with some free trade prerogatives.

Finally, the global regulation of food safety requires – in light of the recent disaster, but also based on earlier data reported by key international organisations in the field – an increase in the level of health protection, even at the expense of commercial and productive prerogatives.

In order to implement the suggested improvements, various reforms may be implemented. Four are identified: (1) to transform the CAC into an organisation that issues international food safety standards with the sole and exclusive purpose of protecting health, in derogation of free trade rules; (2) to apply the precautionary principle on a global scale and in international organisations; (3) to strengthen the mandatory labelling tool, with real and complete traceability of the production chain and with information that is not only useful for guiding consumers, but also for directing manufacturers towards more virtuous processes; and (4) to create a common system of controls that, while leaving room for States in the executive phase, keeps principles, rules, procedures, coordination and supervision at the centre, and at the supranational level.

The discipline of agro-food concerns a strategic sector that is closely linked to the liberalisation of markets on a global scale and requires common rules that facilitate trade but also maintain high guarantees of safety and quality. This sector, therefore, needs a public organisational apparatus – with regulatory, executive and control functions – that is widespread and extensive and that acts uniformly and consistently, while leaving a margin of discretion to nation states for greater health protection. To date, however, the food safety regulation system has appeared to be unbalanced, at times ineffective and not sufficiently attentive to the protection of health and safety.

For these reasons, global decision-makers are called upon to improve and make more effective the current global regulatory framework by changing the objectives of common rules towards a more health-orientated design and by ensuring that these rules are implemented as homogeneously as possible, while leaving the executive activity to national bodies and their expertise.