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Drafting Agricultural Legislation

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Drafting Agricultural Legislation

Jessica Vapnek¹



Abstract

Agricultural legislation” is an umbrella term that covers a broad range of topics, including food, veterinary matters, plant protection, seeds, forestry, fisheries, water, and land. Agricultural legislation also intersects with other discrete subject areas, including environment, health, and trade. Because of these interconnections the borderlines – where agriculture begins and these related topics end – are debatable.

How different countries view agriculture varies significantly. In the developed world, agriculture is mostly a commercial enterprise, and “agricultural law” is considered largely to apply to the business of agriculture, including agricultural finance, supply chains, marketing, insurance (crop, drought, pest), real estate, intellectual property, biotechnology, engineering, and hydrology.

The last few decades have seen an intellectual shift within the academic community, away from a focus on “agriculture as a business” toward agriculture as the engine that produces food for humanity. Under this conception, agriculture is important because it produces the food that we eat; agricultural laws are therefore understood to cover all aspects of the

¹ Associate Dean of the MSL Program and Faculty Director of the International Development Law Center, UC Hastings College of the Law. I would like to thank Kelsey Galantich, Dale Radford and Helga Turku for research support, and I am keenly grateful to Larry Christy (former Chief, Development Law Service, FAO Legal Office), David Marcello (Director, Public Law Center, Tulane Law School) and Julia Rogers (international legislation expert) for their close and thoughtful review. This paper was originally published as part of the [International Legislative Drafting Guidebook](#) (D. Marcello, ed.), Carolina Academic Press (2021), which collects a series of articles by the experts who have been lecturing at Tulane Law School’s [International Legislative Drafting Institute](#) for the last 25 years.

production and distribution of food, including the regulatory functions of local, subnational, and national governments.

Because agricultural law and legislation cover so many distinct subject areas, this article provides a conceptual framework to organize this rich and complex subject.

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Introduction

A conceptual and organizational challenge confronts those drafting agricultural legislation: agriculture is a nexus for so many diverse subject areas that policy makers and drafters alike need a road map to understand it. For this reason, this article begins with different countries’ conceptions of agricultural law, hints at the staggering variety of types of agricultural laws, points out the fuzzy borderlines between agriculture and other related topics and finally offers my own four organizational categories as a way out of this sometimes-confusing subject area.

What Is Agricultural Legislation?

“Agricultural legislation” is an umbrella term that covers a broad range of topics, including food, veterinary matters, plant protection, seeds, forestry, fisheries, water and land. Agricultural legislation also intersects with other discrete subject areas, including environment, health and trade. It is because of these interconnections that the borderlines – i.e., where agriculture begins and these related topics end – are debatable.

How different countries view agriculture varies significantly. In the United States, agriculture is mostly a commercial enterprise, and so the term “agricultural law” is considered largely to apply to the business of agriculture.² Relevant sub-topics of

² Schneider, SA, “What is Agricultural Law?” *Agricultural Law Update* (Jan. 2009) at 1, <https://agrillifecdn.tamu.edu/texasaglaw/files/2014/09/This-article-by-Susan-A.-Schneider.pdf>.

agricultural law in the American context therefore include contracts, insurance and subsidies. And in those few U.S. law schools that offer courses on agriculture, an agricultural law survey course will usually cover agricultural finance, supply chains, marketing, insurance (crop, drought, pest) and real estate.³ More recently, the increasing modernization and sophistication of the agricultural sector have implicated other legal issues, such as intellectual property, biotechnology, engineering and hydrology.

The last few decades have seen an intellectual shift within the U.S. academic community away from a focus on “agriculture as a business” toward agriculture as the engine that produces food for humanity.⁴ In 1990, Neil Hamilton identified “the fundamental nature of the production of food to human existence” as one of the primary reasons supporting the study of agricultural law.⁵ Presumably for this reason, the L.L.M. in Agricultural Law at Vermont Law School was renamed the L.L.M. in Food and Agricultural Law in 2014.⁶ Under this conception, agriculture is important because it produces the food that we eat; agricultural laws are therefore understood to cover all aspects of the production and distribution of food, including the regulatory functions of local, state and federal governments.

Environmental law plays a heightened role under this new view of agricultural law, given the environmental impacts of agricultural practices in general and of agricultural water and land uses in particular. In addition, because agriculture has important public health impacts on agricultural workers and consumers (due to the use/overuse/misuse of agricultural inputs such as fertilizers and pesticides and the consumption of food with residues), there is also a close nexus with public health law.

Anecdotal evidence suggests that today’s law students – like many other U.S. consumers – are increasingly interested in food issues and concerned about food labelling, animal welfare, organic agriculture and the risks of climate change adversely affecting agricultural production and food security.⁷ Thus, the study of agriculture and food law in the United

³ For example, the syllabus for agricultural law at Texas A&M includes Texas Real Property or Land Use Law and Water Law as core courses, as well as recommended courses such as Business Associations, Contract Drafting, Real Estate Drafting, Secured Transactions and Wills and Estates. *Agricultural Law*, TEXAS A&M UNIVERSITY SCHOOL OF LAW (Jan. 21, 2019, 5:15 PM), <https://law.tamu.edu/prospective/paths-to-success/guide-to-practice-areas/agriculture-law>.

⁴ For a review of these intellectual developments, see Hamilton, ND, “The Role of the Law in Shaping the Future of American Agriculture”, 38 DRAKE L. REV. 573 (1989), available at <https://nationalaglawcenter.org/publication/hamilton-the-role-of-the-law-in-shaping-the-future-of-american-agriculture-38-drake-l-rev-573-587-1989/>

Hamilton, ND, “The Study of Agricultural Law in the United States: Education, Organization and Practice”, 43 ARK L. REV. 503 (1990), available at http://nationalaglawcenter.org/wp-content/uploads/2013/06/hamilton_study.pdf

⁶ *Vermont Law School Offers New Master’s Degrees in Food and Agriculture Law, Policy*, October 10, 2014, <https://www.vermontlaw.edu/news-and-events/newsroom/press-release/vermont-law-school-offers-new-masters-degrees-food-and>

⁷ See, for example, *Safe and sustainable: UCLA launches Food Law and Policy Clinic*, Feb. 21, 2017: “Law students in California are increasingly interested in working as activists, organizers and change agents in the

States now encompasses everything from public health to “environmental protection and stewardship, economics and markets, consumer protection, social justice and equity, and climate change.”⁸

The U.S. resurgence of interest in the broader – or even ubiquitous – reach of agriculture and agricultural laws and their connections to food production must be a source of amusement among many of the world’s developing countries, because most of these countries never lost sight of the importance of agriculture: they could not – as agriculture employs the vast majority of their citizens and generates a large percentage of their income. For example, in India (a developing middle-income country), agriculture accounts for 50% of employment and 18% of GDP.⁹ Similarly, in Ghana, agriculture contributes 54% of the GDP and 40% of export earnings.¹⁰ In China, the numbers are 27% of the work force¹¹ and 7.7% of GDP.¹²

Mention “citrus certification”¹³ or “pest-free area”¹⁴ to someone in the United States and you may get a blank stare (except in scientific circles). But if you mention “cocoa” to a random stranger in Abidjan or “tilapia” to a taxi driver in Bangkok, you might get a torrent of words on the importance of disease control, price subsidies and export facilitation. This is because between those working in agriculture (subsistence or otherwise) and those aware of the importance of the country’s agriculture to both food security and the economy, you have covered nearly 100% of the population in most countries around the world.

food law and social justice realms” (quoting Roberts, MT)), <https://www.universityofcalifornia.edu/news/safe-and-sustainable-ucla-launches-food-law-and-policy-clinic>; see also *Yale Law School Clinics Help Launch Legal Food Hub*: “the idea began several years ago just as the [Environmental Protection] Clinic began taking on more food projects to meet rising student interest”, <https://law.yale.edu/yls-today/news/yale-law-school-clinics-help-launch-legal-food-hub>.

⁸ Food and Agricultural Specialization, VERMONT LAW SCHOOL (June 10, 2022), <https://www.vermontlaw.edu/academics/specializations/food-agriculture-law>.

⁹ India Ministry of Finance, “Climate, Climate Change, and Agriculture” in ECONOMIC SURVEY 2017-18, at 83, available at http://mofapp.nic.in:8080/economicsurvey/pdf/082-101_Chapter_06_ENGLISH_Vol_01_2017-18.pdf.

¹⁰ FAO, “Ghana at a Glance” (June 10, 2022, 8:30 AM), <https://www.fao.org/ghana/fao-in-ghana/ghana-at-a-glance/en/>.

¹¹ “Distribution of the workforce across economic sectors in China from 2007 to 2017”, STATISTA (June 10, 2022, 8:31 AM), <https://www.statista.com/statistics/270327/distribution-of-the-workforce-across-economic-sectors-in-china/>.

¹² World Bank, “Agriculture, forestry, and fishing, value added (% of GDP) – China” (June 10, 2022, 8:33 AM), <https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=CN>.

¹³ These are disease control programs regulating the distribution and sale of planting materials that have been “certified” free from diseases and pests. Vapnek, J, “Legislatively Establishing a Health Certification Programme for Citrus”, FAO Legal Papers Online No. 81 (1999), available at <http://www.fao.org/3/a-bb114e.pdf>.

¹⁴ Meaning “an area in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained.” “Requirements for the establishment of pest free areas”, International Standard for Phytosanitary Measures No. 4 (1995) [subsequently referred to as ISPM No. 4], available at https://www.ippc.int/static/media/files/publication/en/2017/05/ISPM_04_1995_En_2017-05-23_PostCPM12_InkAm.pdf.

Since the bulk of my professional experience in agricultural law was under the auspices of the United Nations Food and Agriculture Organization (FAO) – specifically, with the unit that provides legislative support to member countries, the Development Law Service of the FAO Legal Office – the topics addressed in this article reflect this broader conception of agricultural law: It is not simply the business of agriculture but rather the full spectrum of topics implicated in the production of food. The next sections examine in more detail the subjects covered every year in my presentation on “Agricultural Legislation.”

Categories of Agricultural Legislation

At the outset, I invited readers to mentally place agricultural law topics into several broad categories. Decisions about what categories to use and which topics to include in each category could generate a long discussion exceeding the scope and word limits of this article. Nonetheless I would underline one point: As you apply these categories and mental divisions, I urge you not to be bound by how national governments traditionally organize their work or their legislation. Simply asking, “What is all of the legislation implemented by the Ministry of Agriculture?” will not answer the question, “What is the agricultural legislation in this country?” In some countries food is regulated by the Ministry of Health, while in others it is regulated by the Ministry of Agriculture, and in most countries, in fact, it is regulated by both. Legislation on water might be assigned to the Ministry of Water Resources (if there is one) or to the Ministry of Environment. Food exports may come under the auspices of the Ministry of Agriculture or the Ministry of Commerce, or both. Food exports may also be regulated by an independent food or agricultural health authority or even, as I saw in one country, the Standards Board.

Each government makes its own choices, although sometimes those choices are vestiges of past decisions or political systems. Most former British colonies organize their legislation around the same broad categories used by Britain; the same is true of the relationship between former French colonies and France. As just one example, former British colonies – including the United States – separate pesticides legislation from plant protection legislation, whereas former French colonies generally regulate both in one piece of legislation called the “plant protection law.”¹⁵

Such different approaches to allocating regulatory authority derive not only from a country’s particular political history; they also stem from present-day political forces and compromises arising within – and sometimes from outside – the country. Let me give an example of each. To succeed in an inter-ministerial turf battle, a particular minister may decide to make a power play and shepherd legislation through Parliament, arrogating

¹⁵ See, for example, *Loi n° 14/PR/95 relative à la protection des végétaux* (Chad), available at <http://www.fao.org/faolex/results/details/en/c/LEX-FAOC004040/>: “The objectives of this law are protection of plants based on phytosanitary measures, integrated pest control, and the regulation of pesticides” (*author’s translation*).

authority to their own ministry;¹⁶ if successful, this can lead to a particular subject area being regulated by a ministry that may not seem to be the logical or even qualified authority for the job. At other times, a particularly forceful donor might use direct leverage – such as a conditional promise to fund laboratories and training – to influence ministers’ and even legislators’ choices.¹⁷ This too can result in an allocation of regulatory authority to what may at times seem like an odd choice of government ministry or department.

Some of these assignments of government authority occur because most intergovernmental organizations interact with just one ministry at a national level: FAO with the Ministry of Agriculture; the World Health Organization (WHO) with the Ministry of Health; the International Labour Organisation with the Ministry of Labor; and so forth. We can imagine a scenario in a particular country where the ministry that truly has the capabilities and resources to regulate food is not the Ministry of Health but rather the Ministry of Agriculture, yet the international organization’s or donor’s counterparts may be located in the under-resourced ministry. This is one reason legislation could end up assigning enforcement authority to a ministry that may not objectively be the best choice. And this is one more reason that looking only at laws implemented by the Ministry of Agriculture will not necessarily capture all the pertinent agricultural laws in the country.

Quixotic allocations of regulatory authority can also cause overlapping responsibilities. As just one example, Pakistan’s Punjab state government documented overlapping regulatory functions within the agriculture department. Not only does the department handle activities outside of its mandated responsibilities (such as packing sugar), but its four directorates often conflict with each other and can sometimes even negate each other. Two different departments within the agricultural division have over 1,000 people assessing crop size twice a year, which often creates confusion (or equally counterproductive rivalries) between the two.¹⁸ I saw many examples in my travels where legislation enacted at different times and for different reasons assigned duplicative powers to more than one ministry or agency.¹⁹

¹⁶ In my early days as an international legislative consultant, I went to a country in the Caucasus where a project had been approved to assist the country in passing a new food law. It took some time for me to realize that in fact the country did not need a new food law. The draft food law, which I was being asked to review, had been prepared by one ministry as a power play to wrest control of food regulation away from another ministry, which was doing just as well (or as badly) as the would-be new regulating ministry would have done.

¹⁷ On one overseas trip, I travelled with a team to a Central African country which had been promised a massive loan from a development bank if it passed legislation regulating animal health, veterinary drugs and the veterinary profession. This was the fastest I ever saw draft legislation prepared by a joint international-national team and enacted by a national legislature.

¹⁸ “Overlapping functions in govt departments”, Dawn (June 10, 2022), <https://www.dawn.com/news/602696>.

¹⁹ See, for example, Vapnek, J and Williams, AR, “Regulating the Packaged Water Industry in Africa: Challenges and Recommendations”, 20 U. DENV. WATER L. REV. 217, 254 (2017): “The regulatory institutions in Sierra Leone perform their roles in parallel, which has resulted in burdensome and duplicative inspections (and inspection fees) for packaged water producers.”.

Ill-conceived or overlapping legislative assignments do not manifest only in developing countries. The United States is also a product of its colonial and political history and has experienced some of the same kinds of turf battles among government departments seen in many developing countries. The patchwork of responsibilities allocated between the US Department of Agriculture and Food and Drug Administration is just one example, and recent proposals to change these responsibilities confirm that fragmentation.²⁰

So, to sum up, my categories are my own and may not always accord with those one might see in a government organigram. The four categories that I use in thinking about agricultural law are:

- Legislation regulating agricultural inputs (for example, seeds, pesticides, fertilizers)
- Legislation regulating natural resources (for example, land, water, fisheries, forests, genetic resources)
- Legislation establishing sanitary and phytosanitary measures (i.e., measures covering animal health, plant health and food safety)
- Legislation regulating agricultural institutions (for example, to facilitate commodity marketing, to give new powers to an agency or institution or to streamline regulatory authority).

These categories will cover most agricultural legislation topics. Some might find my choices imperfect, but in my defense, practical experience gained over many years helped inform those categories and topics. I hope the next sections persuade you that the classifications make sense. But first I offer a quick overview of the agricultural production process so that we share the same understanding of some common terms.

Agricultural products go through several steps before they reach the consumer. They originate in *production*, which consists of rearing livestock or cultivating crops, slaughtering the animals or harvesting the plants when they become mature and processing the meat or plant materials into products. *Commercialization* is the next step, as the items are packaged, labelled, advertised and stored before they proceed to market. Prior to sale, the goods move toward market through different means of transport (air, sea, road or rail) and may be exported into international trade. *Regulation* is the framework of rules and controls that apply to each step of the process; it includes activities such as inspection, licensing, quarantine or other movement restrictions, seizure, destruction and compensation. The laws governing agriculture will usually assign legal responsibility to a ministry, unit or agency which acts as the designated competent authority, and the entire legal regime exists within a framework of obligations set by treaties or other international or regional agreements. As we

²⁰ Tobin, T, "Food Safety in One Basket? Fixing A Fragmented Food Safety System", Forbes (Oct. 10, 2018), outlining proposed reassignment of food safety responsibilities from the FDA to the USDA, even though currently FDA regulates 80% of the country's food supply to USDA's 20%, available at <https://www.forbes.com/sites/tommytobin/2018/10/10/foodsafety/#61db55d1956e>.

examine the four categories referenced above, the confusing array of terms may acquire more meaning if we think of them as part of a process involving the production, commercialization and regulation of agricultural products on their journey to consumers.

Legislation Regulating Agricultural Inputs

“Agricultural inputs” are substances used in agricultural production, such as seeds, pesticides, fertilizers, animal feeds and veterinary drugs. Regulation of these items is important because agricultural producers may have trouble selling their products (and especially exporting them) if they do not have good access to high quality seeds and other inputs. Producers will also run into difficulties if they do not manage or use inputs properly, which may lead to excessive pesticide or veterinary drug residues on products for human or animal consumption. For these and other reasons, legislation must govern the entire life cycle of agricultural inputs – from importation, manufacture, labelling and storage to transport, sale and use.

Seeds

The basic purpose of seed legislation is to regulate seed quality. Farmers need to be confident that the seeds they buy are of the variety and quality sought and advertised or they risk losing not only the money spent on the seeds but also their crops and even their livelihoods.²¹ Thus seed legislation will either establish a new entity to exercise regulatory authority or may assign responsibility to an existing unit (such as a department within the ministry of agriculture) to implement and enforce the regulatory regime. The seed legislation might also establish a board or committee to govern the seed sector and to oversee implementation of the country’s agricultural policy (or seed policy, if it has one). The legislation will likely provide for the appointment (or assignment) of inspectors and laboratory analysts and will establish procedures for inspections and laboratory analysis.

Seed laws protect farmers from fraud while also protecting sellers when the seeds’ failure to germinate is not the seller’s fault. To this end, seed laws regulate the production, processing, testing, packing, storage and sale of seeds. Because access to high quality seed can maximize production (thereby feeding more people on less land and with less water), seed laws and regulations establish standards for the germination rate (*high*), varietal purity (*high*), percentage of weed seeds (*low*), humidity (*low*) and presence of seed-borne diseases (*low*) of seeds offered for sale. In addition to establishing these standards for seeds, the legislation will usually outline requirements for seed labels.

²¹ Esbo, Al-Jibouri, HA, Delouche, JC, H. Potts, H, and Thomson, JR, “Seed Legislation, Cereal Seed Technology”, FAO Agr. Dev. Paper No. 98 (FAO: Rome, 1975), at 203, available at <https://ir.library.msstate.edu/bitstream/handle/11668/13535/A-13.pdf?sequence=1&isAllowed=y>.

Fertilizers and Pesticides

Legislation regulating pesticides and fertilizers (which in some countries is combined) establishes standards and procedures for the production, import/export, packaging, labelling, storage and sale of these potentially hazardous products. Generally, the legislation will require importers and manufacturers to obtain a license to work with these substances, while the persons who actually apply certain substances to crops have to wear protective clothing and gear. In many countries, each individual fertilizer or pesticide product must be registered to be legally sold in the country. As with seed legislation, pesticide and fertilizer legislation will designate a ministry, department or agency to take the lead in implementation. Unlike seeds, pesticides are governed by a robust international legal framework, much of which is obligatory for countries that have signed the various international conventions.²²

Because misuse of fertilizers and pesticides can lead to negative environmental impacts on land and water, most legislation regulates the use and disposal of these products along with their containers. Additional provisions cover disposal of obsolete pesticides; national legislation should follow international guidance in this area.²³ To avoid harm to human health, the legislation will likely prohibit reusing containers or transporting fertilizers and pesticides in the same vehicles as food or other products intended for human consumption. Many countries regulate advertising of pesticides, and countries with low literacy rates may add specific requirements for labels and packages, such as inserts in local language or non-word pictograms.

Animal Feed and Veterinary Drugs

Legislation on animal feed is intended to protect animal health – and human health – by regulating the manufacture and import of materials used in animal feed as well as the feed itself. Medicated animal feeds will often be specially regulated to ensure that residues do not remain in animal products intended for human consumption. These same concerns underlie veterinary drugs legislation, in particular the provisions establishing withdrawal periods (the time after administration of a drug before an animal may be slaughtered for food). Like the other types of legislation on agricultural inputs, legislation on animal feed and on veterinary drugs almost always establishes requirements for packaging, labelling, storage and sale.

Legislation Regulating Natural Resources

The broad category of legislation regulating natural resources covers land, water, forests and forest products, fisheries and fishery products and animal and plant genetic resources. It includes legislation formalizing land rights, establishing a system to allocate water

²² See “A Quick Guide on International Chemical Conventions”, https://www.chemsafetypro.com/Topics/Convention/international_chemical_conventions.html.

²³ See, for example, FAO, “*Prevention and Disposal of Obsolete Pesticides*”, available at <http://www.fao.org/agriculture/crops/obsolete-pesticides/what-now/guides/en/>.

abstraction licenses, protecting fisheries from depletion or pollution and regulating the utilization of national plant and animal genetic resources while also protecting them for present and future use.

Land

Land legislation creates the institutional framework for administration of land rights, which is essential to stability and identity in many countries. In much of the world, “land holds symbolic and practical importance as an economic resource central to livelihoods; it is also a source of social legitimacy, a reflection of power in society, a basis of cultural identity, and a symbol of belonging to a community.”²⁴ For these reasons, land legislation necessarily addresses land ownership (state vs. private) as well as the rights and responsibilities of land holders. Some countries specifically address access to land for vulnerable groups as well as the recognition of customary rights and land rights for indigenous peoples.

Water

The term “water law” can be difficult to pinpoint, as it may refer to the vast legal framework for international or regional management of shared water resources (such as rivers and lakes), or it may mean allocation of water rights at a national or sub-national level. In fact, as a simple matter of language, it means both – and it includes a third area of interest: drinking water. This article refers to the allocation of water rights in national-level legislation. In this area of water law, a government will use legislation to establish a system to decide (or to enshrine in legislation what has already been decided in a constitution) who has water rights and how they are allocated. As a general matter, this type of legislation creates a system of licenses to give users permission to abstract²⁵ water in certain quantities. The legislation usually includes detailed procedures for applying for a license (and for having the license suspended or revoked). Provisions governing water pollution and discharge of effluents into water sources may be included in the water law, or these issues may be addressed in environmental legislation.

Fisheries

National laws governing fisheries must conform to international obligations under a variety of international treaties and conventions that the country may have signed.²⁶ Depending on the local system, the national legislation may cover subsistence fishing, commercial fishing or both. Fisheries legislation covers the control and monitoring of fisheries and aquaculture,

²⁴ Vapnek, J, Fofie, A and Boaz, P, “Resolving Disputes and Improving Security in Post-Conflict Settings: An Example from Liberia”, *Arbitration* 83:3 (2017), at 288-89, available at <https://www.ciarb.org/media/1380/august-2017.pdf>.

²⁵ This technical term, often seen in agricultural laws, has the same meaning as to “take” water from the water source.

²⁶ Among many others, these include the Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, the Straddling Fish Stocks Agreement and the Convention on Fishing and Conservation of the Living Resources of the High Seas.

including inspections. As with land resources, many countries have enacted, or are considering recognizing, community ownership of fishery resources and formalizing stakeholder participation in the management of fisheries. Other provisions might address protection of endangered fish species and habitats, as well as vessel registration and inspection. Fishery products may be regulated in a country's fisheries legislation or in its food law.

Forestry

Forestry law increasingly establishes community management, whereby local populations living near forests are granted legal rights to use forest resources and are assigned legal obligations to manage and protect them. Forestry legislation generally regulates collection of timber, honey, mushrooms and other forest products, while also preserving the forests themselves. Many forest laws also cover protection of wildlife in forests, compensation for damage to wildlife and prevention of wildfires. Forestry law intersects closely with environmental law as it addresses, among other things, conservation of forests and forest species.

Plant Genetic Resources

National laws on plant genetic resources for food and agriculture (PGRFA) are usually enacted after a country signs the International Treaty on Plant Genetic Resources for Food and Agriculture. The treaty's objectives are the "conservation and sustainable use of all plant genetic resources for food and agriculture and the fair and equitable sharing of the benefits arising out of their use . . . for sustainable agriculture and food security."²⁷ Signatory countries are obliged to conform their national legislation to the treaty, which requires them to strengthen national systems for conservation and sustainable use of PGRFA and to realize farmers' rights through whichever approach they choose.²⁸

Synergy

An important theme running through this category of legislation is that most natural resources provide more than one societal benefit. Forests do not exist just to provide wood or forest products; they are also resources in themselves – for example as watersheds, for recreational activities or for tourism. Similarly, water bodies do not have value only because their water can be allocated to different consumptive uses (such as irrigation, food production and domestic needs): some water resources must be kept whole and unpolluted to foster tourism, preserve fisheries and protect biodiversity. Consequently, there must be limits on consumption to avoid over-salination or exhaustion of lakes, rivers and

²⁷ International Treaty on Plant Genetic Resources for Food and Agriculture, available at <http://www.fao.org/3/a-i0510e.pdf>.

²⁸ Bioversity International, *National Implementation of the International Treaty on Plant Genetic Resources for Food and Agriculture Learning Module* (G. Moore & E. Goldberg, eds.) (2010), available at <http://treatylearningmodule.bioversityinternational.org/>.

groundwater. Whichever natural resource is at issue, legislation in this category will protect the resource itself while also taking into account these larger concerns.

Legislation Establishing Sanitary and Phytosanitary²⁹ Measures

The next category of legislation consists of sanitary and phytosanitary (SPS) measures, meaning measures to protect human, animal and plant life and health against the risks associated with plant pests and animal diseases. Among other benefits, SPS measures permit national governments to act quickly in response to infestations or outbreaks, which is essential to containing and mitigating their harm. SPS measures also enable governments to declare pest-free or disease-free zones to facilitate exports of plants, animals or their products from those areas.

The main international instrument covering this category of agricultural law is the World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement), which aims to promote free trade by ensuring that a country's SPS measures are transparent and risk-based and not simply a cover for protectionism. The SPS Agreement identifies three international organizations that are the source of international standards: the FAO/WHO Codex Alimentarius Commission for food; the International Plant Protection Convention for plants; and the World Organization for Animal Health (WOAH)³⁰ for veterinary matters. WTO members are encouraged to use the applicable international standards for SPS measures, although countries are permitted to apply stricter measures where they are based on science or appropriate risk assessment.³¹

Food Safety Legislation

Food safety legislation controls enterprises involved in every aspect of the production process: rearing, handling, manufacturing, preparing, transporting, storing, processing, packaging, labelling, importing and exporting food. Some detailed regulations establish the maximum permitted levels of pesticide or other chemical residues in food products to ensure that they are safe for human consumption, while others elaborate detailed requirements for food containers and food labels. Most countries also regulate advertising of food products. As noted, the Codex Alimentarius Commission develops and issues official international standards for foods, food products and various aspects of food production. Under the SPS Agreement, all WTO member countries developing national food safety laws and regulations are required to rely on those standards where they exist.

²⁹ phyto = plant; sanitary = health; phytosanitary = having to do with plant health.

³⁰ In June 2022, the World Organization for Animal Health, which until then had retained its French acronym OIE, announced that it was formally adopted the acronym "WOAH." See <https://www.woah.org/en/home/>.

³¹ See Understanding the WTO Agreement on Sanitary and Phytosanitary Measures, https://www.wto.org/english/tratop_e/sps_e/spsund_e.htm.

Plant Protection Legislation

Plant protection legislation is designed to prevent and limit harm from plant diseases and pests.³² These laws usually create or designate a competent national authority (which may be a ministry, a unit of a ministry or an independent agency) that exercises specific functions in its role as the nominated National Plant Protection Organization or NPPO³³ under the International Plant Protection Convention (IPPC). National legislation empowers the NPPO to designate official laboratories, analysts and inspectors; conduct surveillance to monitor the appearance or spread of plant pests and diseases; interact with other regional and international plant protection organizations; restrict the movement of people, animals and plants during an outbreak; and take other actions to protect the country's plant resources. A regulation or schedule accompanying the principal legislation generally lists the diseases and pests in the country that may require specific control measures.

Plant protection legislation also regulates the importation and exportation of plants and plant products. An important power of the NPPO is its ability to seize and destroy infected or infested plants and plant products on importation (or within the country, in case of an outbreak); the legislation usually authorizes the payment of compensation to the importer or owner in such circumstances. The IPPC Secretariat, housed at FAO headquarters in Rome, has issued numerous International Standards for Phytosanitary Measures³⁴ (and other guidance) –essential resources for national governments to draw upon as they develop their national phytosanitary legislative frameworks.

Another key power of the NPPO is to declare areas of low pest prevalence or pest-free areas. In brief, where a country has eliminated a pest from a certain area or reduced its prevalence to a certain level, the NPPO can declare the area one of low pest prevalence or pest free.³⁵ This streamlines and facilitates the export of plants or plant products certified as coming from that area, because they will be presumed free from a particular pest and so require less or no inspection at their destination.

Veterinary Legislation

Veterinary legislation refers to legal instruments aimed at protecting animal life and health. It covers a variety of subject areas, including disease surveillance, inspections, vaccinations,

³² Recall that in most civil law systems, “plant protection” legislation combines phytosanitary provisions with provisions regulating pesticide products. See above n.15 and the accompanying text.

³³ See FAO, “Operation of a National Plant Protection Organization: A guide to understanding the principal requirements for operating an organization to protect national plant resources from pests” (2015), available at https://www.ippc.int/static/media/files/publication/en/2018/06/Operation_of_an_NPPO_Guide_Operations_P_R3Final_WEB.pdf.

³⁴ IPPC, *Adopted Standards*, <https://www.ippc.int/en/core-activities/standards-setting/ispms/>.

³⁵ ISPM No. 4, above n. 14: pest free areas require establishment and then maintenance of (1) systems to establish freedom from a pest; (2) phytosanitary measures to maintain freedom; and (3) checks to verify that freedom from the pest has been maintained.

sanitary control measures, animal identification and movement and even the veterinary profession. Other instruments cover animal production, including registration of farms and procedures for animal breeding. The next steps in the production chain – slaughter and related processes – are often addressed separately, and sometimes in conjunction with food safety legislation.

Every piece of veterinary legislation will establish or designate a governmental unit, usually the authority for veterinary services, to take charge of these functions and be the interlocutor with WOA, in the same way that the NPPO is the interlocutor with FAO for plant protection matters. The designated veterinary unit is known as the Veterinary Authority (VA) in WOA parlance.

Just as phytosanitary legislation did for plants, animal health legislation outlines sanitary measures to prevent and control animal diseases. The legislation addresses the various steps involved in importing and exporting animals and animal products, including veterinary certification, import licenses, export permits and inspections. Animal welfare cuts across all the preceding subject areas; for that reason, it is often regulated in a freestanding piece of legislation (if it is addressed at all: in many countries, it is not).

Like the NPPO for plants and plant products, the VA has the power to seize and destroy animals and animal products, upon import or within the territory, in case of disease outbreak. Compensation – and especially communication about the importance of compensation – is essential in this context, particularly in countries with low education levels where small producers may quickly sell or slaughter their stock upon news of an outbreak for fear of losing their livelihood. To address this risk (which spreads the disease faster), the government should use legislation to establish the compensation system, or at least its outlines, in advance of any outbreak and conduct broad public awareness-raising activities.³⁶

As with plant protection legislation, veterinary legislation generally lists specific diseases and the sanitary measures associated with each one; subsidiary legislation may set out detailed emergency plans for specific diseases. Separate legislation usually regulates the practice of the veterinary profession and the powers of veterinary paraprofessionals (for example, veterinary technicians or nurses). Regulation of veterinary practice is a key point of contention in many developing countries where the relatively few veterinarians practice mainly in the capital city or other urban areas, leaving vast rural areas dependent on paraprofessionals for animal health services. And yet, paradoxically, it is often in these same circumstances that veterinarians will fight most vigorously against any new or amended legislation that would allow non-veterinarians to carry out certain activities, even those with

³⁶ See Vapnek, J, "Institutional and Legal Measures to Combat African Swine Fever", FAO Legal Papers Online No. 3 (1999), available at <http://www.fao.org/3/a-bb036e.pdf>.

low skill requirements such as vaccination.³⁷ Veterinary legislation should address this issue head on, establishing and regulating categories of paraprofessionals and expressly allowing delegation of official tasks to non-governmental veterinarians and laboratories. The government's ability to call on private veterinarians and clinics, for example, is particularly important in case of a disease outbreak.

Legislation on animal feeds and legislation on veterinary drugs are also types of veterinary legislation, although I earlier placed them in the "agricultural inputs" category and discussed them in that section.³⁸

Legislation on Agricultural Institutions

The fourth category of agricultural legislation covers agricultural institutions and includes laws that address agricultural finance, agricultural insurance and agricultural taxation. Legislation in this area also encompasses laws governing the creation and management of agricultural cooperatives as well as laws establishing commodity boards for specific agricultural products. The purpose of these boards is usually to shift some policy making responsibility to the private sector, which conducts marketing and agricultural research with respect to a particular commodity and conveys its recommendations to the government. By drawing on the expertise of the producers of specific commodities, and by educating those producers, commodity boards support local production while also fostering compliance with international trade rules.

Another important type of legislation in this category establishes certification systems for product quality. In these systems, the government requires all enterprises in a given sector – such as citrus nurseries or cattle farms – to be registered and subject to a quality control and certification regime. The legislation may go even further, imposing marking or labelling rules for individual plants, animals or products to help trace back diseases and facilitate remedial action in case of outbreaks. These certification systems can also have a beneficial effect on trade, because consumers tend to buy more of – and pay more for – products whose provenance and "healthfulness" are certified.³⁹

The last area of legislation relevant to agricultural institutions consists of provisions regulating the ministry of agriculture, the VA or the NPPO. In some countries, these important agricultural institutions may lack certain powers and so new or amended

³⁷ The same phenomenon can be observed in the medical and legal professions – and not just in developing countries: lawyers resist allowing non-lawyers to conduct certain activities, doctors the same vis-à-vis nurses. Whether reasonable or unreasonable, this resistance may derive from a fear of diluting the honor and prestige of the profession, concern about losing income or both.

³⁸ As I noted earlier, the categories of agricultural legislation, and what goes into each one, are purely a matter of conceptual convenience and there is much to argue about.

³⁹ See, for example., Junhee Cha, Jung-Nam Chun, and Youn Yeo-Chang, *Consumer Willingness to Pay Price Premium for Certified Wood Products in South Korea*, J. Korean Forestry Soc. 98:2 (2009), at 210 (80% of consumers surveyed in Seoul were willing to pay more for certified wood products), available at <https://pdfs.semanticscholar.org/81d6/50f39904e68cf0dd93bcd719e77ad8438a5f.pdf>.

legislation is needed. As just one example, existing legislation may not empower the VA or the NPPO to seize and destroy infected materials or to impose quarantine measures in case of an animal or plant disease outbreak. The power to award compensation, as discussed above, may also be lacking. Legislation may also be needed to streamline or rationalize overlapping government functions where two or more ministries, agencies or government units are exercising the same power in the agriculture sector. The resulting duplicative inspection regimes can put a brake on development and discourage investment: in addition to being ineffective and even counterproductive, redundant systems of control can invite corruption, as producers attempt to evade burdensome bureaucracies.⁴⁰ Finally, as noted earlier, governments may want to amend their legislation to allow government agricultural institutions to rely on private entities for some governmental functions, such as surveillance and animal vaccination.

Conclusion

This article might give the impression that agricultural legislation is fairly straightforward, and to a great extent it is. This is one of the advantages of legislation based on science: there is less to debate. Nonetheless, problems can arise in crafting agricultural legislation. Some, I hinted at earlier in this article; others, I mention briefly here.

One potentially controversial issue is the need to balance conflicting demands on natural resources. Water legislation cannot only allocate water to competing uses; it must also take account of the need to preserve the water resource itself for tourism, for transportation or as a watershed. Another area of complexity in many countries is the conflict between customary rights and the formal legal system. As an example, customary land law might require a widow to be evicted from the family home, but this could conflict with a country's recent constitution, if it embraces modern human rights principles. Many other interests may need balancing, including protecting rare species vs. abstracting water for irrigation, or the right to farm vs. the neighbors' right to peaceful enjoyment of their property. Resolving these conflicts will never be easy, but success is more likely where legislation is the product of a collaborative process.

The ideal is to set up a format where the legislative proposals arise from a lively interplay and exchange between the legal and the technical experts.⁴¹ The process should be

⁴⁰ It may not be as blatant or egregious as, "I'll give you a wad of cash if you ignore my sick cows or non-segregated seedlings." It might simply be, "Great to see you, Joe Inspector, here's a gift of a crate of oranges (so you'll get out of my hair quickly and I can get back to work)."

⁴¹ One of the most productive (and intellectually satisfying) workshops I ever participated in was in the early 2000s under the auspices of FAO and CARICOM (the Caribbean Community). FAO invited one lawyer and one plant protection expert from each CARICOM member country, and we sat in a large conference room (at a hotel in Port of Spain) for several days going through each provision of a draft model plant protection law, discussing, arguing and eventually reaching a meeting of the minds on a multitude of issues. This format allowed for an interplay between lawyers and non-lawyers, between national and international lawyers, between national and international plant protection experts and between lawyers and technical

participatory – allowing for genuine involvement of all implicated stakeholders – both to accommodate the multiple interests at stake and to ensure that those who will be affected by the new legislation are involved, consulted and on board. This may require national consultations, rural radio programming and publication of drafts or synopses of legislation in newspapers and other media. Any delays in enactment, and any expenses incurred in carrying out the consultations, will pay dividends in compliance, support and even advocacy on the part of those who will be affected by the new legislation. These consultations should include both government and private stakeholders, since government officials, as well as businesses and individual citizens, can stymie implementation if they lack a sense of ownership of the new legislation and did not participate in its development. Following all these steps should help ensure that the agricultural legislation embodies international standards, reflects the scientific consensus and is appropriately tailored to the national context.

experts from different countries but all from the same region. The amount of ground covered in just a few days was staggering.