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G.R. No. 209271 – INTERNATIONAL SERVICE FOR THE ACQUISITION OF AGRI-BIOTECH APPLICATIONS, INC., *petitioner,* v. GREENPEACE SOUTHEAST ASIA (PHILIPPINES), MAGSASAKA AT SIYENTIPIKO SA PAGPAPAUNLAD NG AGRIKULTURA (MASIPAG), REP. TEODORO CASIÑO, DR. BEN MALAYANG III, DR. ANGELINA GALANG, LEONARDO AVILA III, CATHERINE UNTALAN, ATTY. MARIA PAZ LUNA, JUANITO MODINA, DAGOHOY MAGAWAY, DR. ROMEO QUIJANO, DR. WENCESLAO KIAT, JR., ATTY. H. HARRY ROQUE, JR., FORMER SEN. ORLANDO MERCADO, NOEL CABANGON, MAYOR EDWARD S. HAGEDORN, EDWIN MARTHINE LOPEZ, *respondents.*

G.R. No. 209276 – ENVIRONMENTAL MANAGEMENT BUREAU of the Department of Environment and Natural Resources, BUREAU OF PLANT INDUSTRY and FERTILIZER AND PESTICIDE AUTHORITY of the Department of Agriculture, *petitioners,* v. GREENPEACE SOUTHEAST ASIA (PHILIPPINES), et al., *respondents.*

G.R. No. 209301 – UNIVERSITY OF THE PHILIPPINES LOS BAÑOS FOUNDATION, INC., *petitioner,* v. GREENPEACE SOUTHEAST ASIA (PHILIPPINES), et al., *respondents.*

G.R. No. 209430 – UNIVERSITY OF THE PHILIPPINES, *petitioner,* v. GREENPEACE SOUTHEAST ASIA (PHILIPPINES), et al., *respondents.*

Promulgated:
December 8, 2015

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CONCURRING OPINION

LEONEN, *J.*:

I concur in the result of the majority's opinion.

The Petition for Writ of Kalikasan of Greenpeace Southeast Asia (Philippines), et al. (now respondents), insofar as it assails the field testing permit granted to private petitioners, should have been dismissed and considered moot and academic by the Court of Appeals. The Petition for Writ of Kalikasan was filed only a few months before the two-year permit expired and when the field testing activities were already over. Thus, the pending Petitions which assail the Decision of the Court of Appeals should

be granted principally on this ground. There was grave abuse of discretion which amounts to excess of jurisdiction.

This does not necessarily mean that petitioners in G.R. No. 209271 can proceed to commercially propagate Bt talong. Under Department of Agriculture Administrative Order No. 8, Series of 2002, the proponent should submit a new set of requirements that will undergo a stringent process of evaluation by the Bureau of Plant Industry and other agencies. Completion of field testing by itself does not guarantee commercial propagation.

To recall, the introduction of genetically modified products, ingredients, and processes requires three (3) mandatory stages of regulatory review. Propagation is not allowed until there is full field testing. Field testing is not allowed unless there are laboratory experiments under contained conditions.

Application for each stage has its own set of unique requirements. The standards of review have their own level of rigor. All the applications for each stage should be published. Public participation in each stage must not only be allowed but should be meaningful.

Furthermore, commercial propagation will not happen immediately with Bt talong because Administrative Order No. 8 is null and void. In its salient parts, it is inconsistent with the basic guidelines provided in our Constitution, violative of our binding international obligations contained in the Cartagena Protocol on Biosafety to the Convention on Biodiversity (Cartagena Protocol), and effectively disregards the Executive Orders issued by the President in the fields of biodiversity and biosafety.

The effect of the invalidity of Administrative Order No. 8 is that petitioners cannot proceed further with any field testing or propagation for lack of administrative guidelines. Any test or propagation of transgenic crops should await valid regulations from the executive or restatements of policy by Congress.

Furthermore, the Petitions in this case should be granted because the Court of Appeals, in adopting the "hot tub" method to arrive at its factual findings, gravely abused its discretion. The transcript of the proceedings presided by the Court of Appeals Division shows how this method obfuscated further an already complicated legal issue. Courts of law have a precise and rigorous method to ferret out the facts of a case, a method which is governed by our published rules of evidence. By disregarding these rules, the Court of Appeals acted whimsically, capriciously, and arbitrarily.

This is an important case on a novel issue that affects our food security, which touches on the controversial political, economic, and scientific issues of the introduction of genetically modified organisms into the consumer mainstream. This court speaks unanimously in narrowing down the issues and exercising restraint and deference. This court must allow the competencies of the administrative regulatory bodies and Congress to fully and meaningfully evolve.

I

The cessation of the validity of all the biosafety permits issued to the University of the Philippines Los Baños in June 2012 and the termination of all field trials as of August 10, 2012 render the Petition for Writ of Kalikasan moot and academic.[1] The Petition for Writ of Kalikasan was originally filed before us on April 26, 2012.[2]

A brief overview of the regulatory process outlined in Administrative Order No. 8 will assist us in providing a framework to put the Petition in context.

Administrative Order No. 8 recognizes three (3) stages before genetically modified organisms—as products, ingredients, or processes—may become commercially available.

The first stage is the **Contained Use** where research on regulated articles is limited inside a physical containment facility for purposes of laboratory experimentation.[3]

The second stage is **Field Testing** where regulated articles are intentionally introduced into the environment in a highly regulated manner also for experimental purposes. It is specifically recognized that in field testing, no specific physical containment measures shall be undertaken "to limit that contact of the regulated article with . . . the general population and the environment."[4] Prior to field testing, the results of the contained experiments are taken into consideration.

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1 Ponencia, p. 41.

2 Id. at 11.

3 DA Adm. Order No. 8 (2002), sec. 1(E):
E. "Contained Use" means the use of a regulated article for research and development inside a physical containment facility intended to limit its contact with, and to provide for a high level of safety for, the general population and the environment and which has been inspected and approved by NCBP.

4 A Adm. Order No. 8 (2002), sec. 1(I):
I. "Field testing" means any intentional introduction into the environment of a regulated article for purposes of research and development and for which no specific physical containment measures are used to limit the contact of the regulated article with, and to provide for a high level of safety for, the general population and the environment. Field testing may be conducted in a single site or in multiple sites.

Finally, the **Propagation** stage is where regulated articles are introduced into commerce.

Each stage is distinct. Subsequent stages can only proceed if the prior stage/s are completed and clearance is given to engage in the next regulatory stage. This is evident from the requisites for conducting each stage.

For contained use, the importation or the removal from point of entry of the material requires (i) authorization given by the Bureau of Plant Industry; and (ii) a letter of endorsement issued by the National Committee on Biosafety of the Philippines.[5] The National Committee on Biosafety of the Philippines, on the other hand, proceeds with its own processes for evaluation of the application for contained use.

Field testing requires that "(i) a Permit to Field Test has been secured from the [Bureau of Plant Industry]; and (ii) **the regulated article has been tested under contained conditions** in the Philippines."[6]

Release for commercial propagation will not be allowed unless "(i) a Permit for Propagation has been secured from [the Bureau of Plant Industry]; (ii) **it can be shown that based on field testing conducted in the Philippines, the regulated article will not pose any significant risks to the environment**; (iii) food and/or feed safety studies show that the regulated article will not pose any significant risks to human and animal health; and (iv) if the regulated article is a pest-protected plant, its transformation event has been duly registered with the [Fertilizer and Pesticide Authority]."[7]

Clearly, mere completion of a preceding stage is no guarantee that the subsequent stage shall ensue. While each subsequent stage proceeds from the prior ones, each stage is subject to its unique set of requisites.

It is, thus, improper to rely on the expectation that commercial propagation of Bt talong shall ensue after field testing. For the process to proceed to commercial propagation, the concerned applicants are still required to formally seek the permission of the Bureau of Plant Industry by filing an application form. There is no presumption that the Bureau of Plant Industry will favorably rule on any application for commercial propagation. It is also not a valid presumption that the results of field testing are always favorable to the proponent for field testing let alone for those who will

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5 DA Adm. Order No. 8 (2002), sec. 6.
6 DA Adm. Order No. 8 (2002), sec. 7.
7 DA Adm. Order No. 8 (2002), sec. 9.

continue on to propagation.

The alleged actual controversy in the Petition for Writ of Kalikasan arose out of the proposal to do field trials. The reliefs in these remedies did not extend far enough to enjoin the use of the results of the field trials that have been completed. ***Essentially, the findings should be the material to provide more rigorous scientific analysis of the various claims made in relation to Bt talong.***

The original Petition was anchored on the broad proposition that respondents' right to a healthful and balanced ecology was violated on the basis of the grant of the permit. With the cessation of the validity of the biosafety permits and the actual termination of all field trials, the very subject of the controversy adverted to by respondents became moot. Similarly because of the Petition's specificity, the case could not be considered capable of repetition yet evading review and, thus, an exception to the rule on mootness.

II

Nevertheless, for the guidance of the bench and bar, the validity of the biosafety permits is discussed. The biosafety permits should have been declared null and void due to the invalidity of Administrative Order No. 8.

Administrative Order No. 8 was created to facilitate agricultural development and enhance the production of agricultural crops through modern biotechnology.[8] As early as October 15, 1990, President Corazon Aquino recognized the importance of modern biotechnology and issued Executive Order No. 430[9] to create the National Committee on Biosafety of the Philippines. The National Committee on Biosafety of the Philippines acts as the body that studies and evaluates the laws, policies, and guidelines relating to biotechnology.

The role of the National Committee on Biosafety of the Philippines was further strengthened in 2006 under Executive Order No. 514, which established the National Biosafety Framework for the Philippines. The Framework applies "to the development, adoption and implementation of all biosafety policies, measures and guidelines and in making biosafety decisions concerning the research, development, handling and use, transboundary movement, release into the environment and management of regulated articles."[10]

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8 DA Adm. Order No. 8 (2002), first Whereas clause.

9 Exec. Order No. 430 (1990), otherwise known as Constituting the National Committee on Biosafety of the Philippines (NCBP) and for Other Purposes.

10 Exec. Order No. 514, sec. 2.1.

Currently, there is no legislation in relation to biotechnology or biosafety. The closest legislation is under Republic Act No. 8435, otherwise known as the Agriculture and Fisheries Modernization Act of 1997. This law makes it an objective of the state "[t]o modernize the agriculture and fisheries sectors by transforming these sectors from a resource-based to a technology-based industry."[11] In line with this, Congress initially allocated 4% of the 10% research and development fund for agriculture to be used to support the biotechnology program.[12]

A more recent law, Republic Act No. 10068, otherwise known as the Organic Agriculture Act of 2010, also promotes the use of biotechnology but specifically excludes genetically modified organisms.[13] The law does not provide regulatory standards for genetically modified organisms.

Aside from the enactment of domestic executive orders and laws, Administrative Order No. 8 was enacted to comply with the Cartagena Protocol on Biosafety to the Convention on Biodiversity. The Convention on Biodiversity came into force on December 29, 1993, and the Cartagena Protocol on Biosafety supplemented the Convention on Biodiversity by providing policy standards for biosafety in the use of living modified organisms.[14]

On April 3, 2002, then Department of Agriculture Secretary Leonardo Q. Montemayor issued Administrative Order No. 8, otherwise known as the Rules and Regulations for the Importation and Release into the Environment of Plants and Plant Products Derived from the Use of Modern Biotechnology. Administrative Order No. 8, Series of 2002, is a regulatory mechanism issued pursuant to the state's police power. It is designed to minimize and manage[15] the risks both to human health and to the environment of genetically modified organisms or plant products altered or generated through "modern biotechnology."[16] These genetically modified organisms or plant products are, in turn, results of human ingenuity and

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11 Rep. Act No. 8435, sec. 3(a).

12 Rep. Act No. 8435, sec. 111(5).

13 Rep. Act No. 10068, sec. 3(b) *Organic agriculture* includes all agricultural systems that promote the ecologically sound, socially acceptable, economically viable and technically feasible production of food and fibers. Organic agriculture dramatically reduces external inputs by refraining from the use of chemical fertilizers, pesticides and pharmaceuticals. It also covers areas such as, but not limited to, soil fertility management, varietal breeding and selection under chemical and pesticide-free conditions, the use of biotechnology and other cultural practices that are consistent with the principles and policies of this Act, and enhance productivity without destroying the soil and harming farmers. consumers and the environment as defined by the International Federation of Organic Agriculture Movement (IFOAM); *Provided,* **That the biotechnology herein referred to shall not include genetically modified organisms or GMOs.** (Emphasis supplied)

14 Cartagena Protocol on Biosafety to the Convention on Biological Diversity <https://www.cbd.int/doc/legal/cartagena-protocol-en.pdf> (visited December 1, 2015).

15 DA Adm. Order No. 8 (2002), sixth Whereas clause.

16 Defined in DA Adm. Order No. 8 (2002), sec. 1(N).

legally recognized patentable inventions to which their creators hold proprietary rights.

III

Two constitutional provisions bear upon the issues relied upon by private respondents in this case. Both are found in Article II, viz.:

> Section 15. The State shall protect and promote the right to health of the people and instill health consciousness among them.
>
> Section 16. The State shall protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature.

Traditionally, these provisions articulate the doctrine that health and ecological concerns are proper purposes of regulation and, therefore, can be the basis of the state's exercise of police power.[17] Having constitutionally ordained goals and principles are, per se, compelling state interests.[18]

Thus, restricting the rights to property and liberties does not deny their holders their "due process of law" provided there is a discernable rational relationship between the regulatory measure and these legitimate purposes. We have, prior to the 1987 Constitution, adopted a fairly consistent deferential standard of judicial review considering that the Congress has more leeway in examining various submissions of a wider range of experts and has the power to create the forums for democratic deliberation on various approaches.

In recent times, we have included a higher degree of review of regulatory measures by requiring that there shall be a judicially discernable demonstration that the measure is least restrictive of fundamental rights.

Thus, in *Serrano v. Gallant Maritime Services,*[19] this court recognized "three levels of scrutiny":

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[17] *See Laguna Lake Development Authority v. Court of Appeals*, G.R. No. 110120, March 16, 1994, 231 SCRA 292, 307–308 [Per J. Romero, Third Division].

[18] *See for example Diocese of Bacolod v. COMELEC*, G.R. No. 205728, January 21, 2015 <http://sc.judiciary.gov.ph/pdf/web/viewer.html?file=/jurisprudence/2015/january2015/205728.pdf> 50 [Per J. Leonen, En Banc], *citing* CONST., art. II, secs. 12 and 13; *Soriano v. Laguardia, et al.*, 605 Phil. 43, 106 (2009) [Per J. Velasco, Jr., En Banc]. In *Diocese of Bacolod,* we stated:

> "Compelling governmental interest would include constitutionally declared principles. We have held, for example, that 'the welfare of children and the State's mandate to protect and care for them, as *parens patriae*, constitute a substantial and compelling government interest in regulating . . . utterances in TV broadcast.'"

[19] 601 Phil. 245 (2009) [Per J. Austria-Martinez, En Banc].

> There are three levels of scrutiny at which the Court reviews the constitutionality of a classification embodied in a law: a) the deferential or rational basis scrutiny in which the challenged classification needs only be shown to be rationally related to serving a legitimate state interest; b) the middle-tier or intermediate scrutiny in which the government must show that the challenged classification serves an important state interest and that the classification is at least substantially related to serving that interest; and c) strict judicial scrutiny in which a legislative classification which impermissibly interferes with the exercise of a fundamental right or operates to the peculiar disadvantage of a suspect class is presumed unconstitutional, and the burden is upon the government to prove that the classification is necessary to achieve a compelling state interest and that it is the least restrictive means to protect such interest.
>
> Under American jurisprudence, strict judicial scrutiny is triggered by suspect classifications based on race or gender but not when the classification is drawn along income categories.[20] (Citations omitted)

This exacting level of scrutiny has been considered in several instances in recent jurisprudence. In *Estrada v. Escritor*,[21] this court required the state, through the Office of the Solicitor General, to show that the means adopted to pursue the state's interest of preserving the integrity of the judiciary by maintaining a high standard of morality and decency among its personnel was the least restrictive means vis-à-vis respondent's religious freedom. More recently, our Decisions in *Diocese of Bacolod v. Commission on Elections*[22] and *Social Weather Stations v. Commission on Elections*[23] considered the propriety of measures adopted to regulate speech in the context of political exercises.

The requirement of adopting the least restrictive means requires that respondent agencies show that there were alternatives considered within the democratic and deliberative forums mandated by law and that clear standards were considered within transparent processes. It is not for this court to consider the validity of the standards chosen. We must, however, be convinced that there is such a standard, that it was assiduously applied, and the application was consistent.

IV

Sections 15 and 16 of Article II are, thus, not simply hortatory rights. They are as much a part of the fundamental law as any other provision in the

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20 Id. at 282–283.

21 529 Phil. 110 (2006) [Per J. Puno, En Banc].

22 G.R. No. 205728, January 21, 2015 <http://sc.judiciary.gov.ph/pdf/web/viewer.html?file=/jurisprudence/2015/january2015/205728.pdf> 50 [Per J. Leonen, En Banc].

23 G.R. No. 208062, April 7, 2015 < http://sc.judiciary.gov.ph/pdf/web/viewer.html?file=/jurisprudence/2015/april2015/208062.pdf> [Per J. Leonen, En Banc].

Constitution. They add to the protection of the right to life in Article III, Section 1.

To recall, this important provision states:

> Section 1. No person shall be deprived of life, liberty or property without due process of law.

This norm is phrased as a traditional limitation on the powers of the state. That is, that the state's inherent police powers cannot be exercised arbitrarily but must be shown to have been reasonable and fair.[24]

The right to life is textually broad to signal the intention that the sphere of autonomy is assumed to encompass life both in terms of its physical integrity and in terms of its quality.[25]

Sections 15 and 16, however, impose on the state a positive duty to "promote and protect" the right to health and to "promote and advance" the right of "the people to a balanced and healthful ecology." With respect to health and ecology, therefore, the state is constitutionally mandated to provide affirmative protection. The mandate is in the nature of an active duty rather than a passive prohibition.

These provisions represent, in no small measure, a shift in the concept of governance in relation to society's health. It is a recognition that if private actors and entities are left to themselves, they will pursue motivations which may not be too advantageous to nutrition or able to reduce the risks of traditional and modern diseases. At best, the actors may not be aware of their incremental contributions to increasing risks. At worse, there may be conscious efforts not to examine health consequences of products and processes introduced in the market. It is expedient for most to consider such costs as extraneous and affecting their final profit margins.

In short, the constitutional provisions embed the idea that there is no invisible hand[26] that guides participants in the economic market to move toward optimal social welfare in its broadest developmental sense.

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[24] *See City of Manila v. Laguio, Jr.*, G.R. No. 118127, April 12, 2005, 455 SCRA 308 [Per. J. Tinga, En Banc]; *White Light Corp. v. City of Manila*, 596 Phil. 444 (2009) [Per J. Tinga, En Banc].

[25] *See* Dissenting Opinion of J. Leonen in *Spouses Imbong v. Ochoa, Jr.*, G.R. Nos. 204819, 204934, 204957, 204988, 205003, 205043, 205138, 205478, 205491, 205720, 206355, 207111, 207172, and 207563, April 8, 2014, 721 SCRA 146, 731–847 [Per J. Mendoza, En Banc] discussing that:
"The constitutional right to life has many dimensions. Apart from the protection against harm to one's corporeal existence, it can also mean the "right to be left alone". The right to life also congeals the autonomy of an individual to provide meaning to his or her life. In a sense, it allows him or her sufficient space to determine quality of life. A law that mandates informed choice and proper access for reproductive health technologies should not be presumed to be a threat to the right to life. It is an affirmative guarantee to assure the protection of human rights."

Producers, by their very nature, participate in the market motivated by their objective to recover costs and maximize their profits. Costs for them usually refer to their pecuniary expenditures. Costs suffered incidentally by the ecology of the locations of their factories or by the health of their consumers are not costs which producers readily and naturally internalize.[27] In an unregulated market, they do not spend their capital to mitigate or remedy these types of damages.[28] In many instances, there is the tendency even to avoid incurring expenses to find out whether these types of damages actually occur. Environmental damage and health risks are, thus, externalities which are usually invisible to them. Externalities are costs which remain unrecognized in the private transaction between the producers and their consumers.

Of course, producers will respond to both the quantity and quality of demand in a market. In an unregulated market, collective consumer preferences will define the types of products that producers will sell. In turn, this will provide the strongest incentive for producers to specialize their products in an efficient and economical manner.

Consumers, however, are also shaped by the incentives in the market. The nature of the benefits which defines incentives is likewise framed by the pervading culture.

Health and consciousness may evolve among consumers. There are, for instance, those who will definitely purchase organic, nontransgenic, and unadulterated food products as a matter of personal choice. There will also be those who, like many of the private respondents in this case, evolve movements to convince the consumers to shift their tastes and their preferences.

Choices of consumers also depend on the consciousness that the present culture sponsors:

> Consciousness can be defined as "the way people conceive of the 'natural' and normal way of doing things, their habitual patterns of talk and action, and their commonsense understanding of the world."[29]

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[26] *See* ADAM SMITH, THE WEALTH OF NATIONS (1776).

[27] JOSEPH E. STIGLITZ, ECONOMICS OF THE PUBLIC SECTOR 215 (2000).

[28] Id. at 223.

[29] DAVID M. ENGEL, *How Does Law Matter in the Constitution of Legal Consciousness?* in HOW DOES LAW MATTER 112 (1998), *citing* SALLY ENGLE MERRY, GETTING JUSTICE AND GETTING EVEN: LEGAL CONSCIOUSNESS AMONG WORKING CLASS AMERICANS 5 (1990).

Legal consciousness, on the other hand, is simply "all the ideas about the nature, function and operation of law held by anyone in society at a given time."[30] This means that the culture and framework of defining incentives and making choices among our consumers also depend on the content of the law and its interpretation in administrative regulatory issuances and judicial decisions.

The imperative for the state's more active participation in matters that relate to health and ecology is more salient given these perspectives and the pervasive impact of food on our population.

At its bare minimum, Sections 15 and 16 imply that the standard to be used by the state in the discharge of its regulatory oversight should be clear. This is where Administrative Order No. 8 fails. While providing for processes, it does not refer to any standard of evaluating the applications to be presented before the Department of Agriculture or, in field testing, the Scientific Review Technical Panel. There are many of such standards available based on best practices. For instance, the regulators may be required to evaluate applications so that there is a scientific demonstration of a "reasonable certainty of no harm"[31] to both health and environment in all aspects in the creation, testing, and propagation of genetically modified ingredients, processes, or products.

Without these standards, Sections 15 and 16 become meaningless. Hence, in this regard, Administrative Order No. 8 is null and void.

V

In addition to constitutional provisions under Article II, the Philippines also sources its environmental obligations from conventions and subsequent protocols. On May 24, 2000, the Philippines became one of the signatories to the Cartagena Protocol on Biosafety to the Convention on Biodiversity.[32] By September 11, 2003, the Cartagena Protocol entered into force in the Philippines.[33]

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30 Id., *citing* David Trubek, *Where the Action Is: Critical Legal Studies and Empiricism*, 36 STAN. L. REV. 575, 592. He, however, refers to Sarat who "hastens to explain that he rejects the approach of 'radical individualization,' that he studies consciousness rather than attitudes because the latter inappropriately presents 'a picture of persons influenced by a variety of factors, thinking, choosing, deciding autonomously how and what to think.'"

31 The United States' Federal Food, Drug, and Cosmetics Act initially coined the standard "reasonable certainty of no harm" with respect to food safety evaluations. *See* Daryl M. Freedman, *Reasonable Certainty of No Harm: Reviving the Safety Standard for Food Additives, Color Additives, and Animal Drugs*, 7 ECOLOGY L.Q. (1978). <http://scholarship.law.berkeley.edu/elq/vol7/iss2/2> (Last Visited: December 1, 2015). The Food and Agriculture Organization of the United Nations reiterated this standard in their GMO Food Safety Assessment: Tool For Trainers, p. 8. <http://www.fao.org/3/a-i0110e.pdf> (Last Visited : December 1, 2015).

32 *Parties to the Protocol and signature and ratification of the Supplementary Protocol* <https://bch.cbd.int/protocol/parties/> (visited December 1, 2015).

33 Preambular clause in Exec. Order No. 514 (2006).

The Cartagena Protocol's objective is to ensure "an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms resulting from modern biotechnology. . . ."[34] Article 23 of the Cartagena Protocol[35] stresses that the public must be consulted in the decision-making process regarding living modified organisms, and that the decisions made with this regard must be communicated to the public.[36]

The Cartagena Protocol emphasizes that risk assessment should be carried out in a scientifically sound manner.[37] In addition, Annex III of the Cartagena Protocol also provides that risk assessment must also be done in a *transparent* manner.[38]

Subsequent executive actions reflect the obligations of the Philippines under the Cartagena Protocol. Executive Order No. 514, which established the National Biosafety Framework, was enacted "to comply with the administrative requirements of the Cartagena Protocol on Biosafety," among other reasons.[39] Executive Order No. 514 restructured the National Committee on Biosafety of the Philippines, an interagency, multisectoral body in charge of the National Biosafety Framework.[40]

The National Biosafety Framework has provisions on Access to Information (Section 6)[41] and Public Participation (Section 7).[42] The

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34 Cartagena Protocol on Biosafety to the Convention on Biological Diversity <https://www.cbd.int/doc/legal/cartagena-protocol-en.pdf> (visited December 1, 2015).

35 Cartagena Protocol, art. 23. PUBLIC AWARENESS AND PARTICIPATION. 1. The Parties shall: (a) Promote and facilitate public awareness, education and participation concerning the safe transfer, handling and use of living modified organisms in relation to the conservation and sustainable use of biological diversity, taking also into account risks to human health. In doing so, the Parties shall cooperate, as appropriate, with other States and international bodies; (b) Endeavour to ensure that public awareness and education encompass access to information on living modified organisms identified in accordance with this Protocol that may be imported.

2. The Parties shall, in accordance with their respective laws and regulations, consult the public in the decision-making process regarding living modified organisms and shall make the results of such decisions available to the public, while respecting confidential information in accordance with Article 21.

3. Each Party shall endeavour to inform its public about the means of public access to the Biosafety Clearing-House.

36 Cartagena Protocol, art. 23.2.

37 Cartagena Protocol, art. 15.1. Risk assessments undertaken pursuant to this Protocol shall be carried out in a scientifically sound manner, in accordance with Annex III and taking into account recognized risk assessment techniques. Such risk assessments shall be based, at a minimum, on information provided in accordance with Article 8 and other available scientific evidence in order to identify and evaluate the possible adverse effects of living modified organisms on the conservation and sustainable use of biological diversity, taking also into account risks to human health.

38 Cartagena Protocol, Annex III(3).

39 Exec. Order No. 514, Whereas clause.

40 Exec. Order No. 514, sec. 4.1.

41 Exec. Order No. 514, sec. 6. ACCESS TO INFORMATION.
The right of the public and the relevant stakeholders to information related to biosafety decisions is recognized and shall always be respected in accordance with guidelines to be issued by the NCBP, which shall include, among others, the following:
6.1 Information on Applications. Concerned departments and agencies shall, subject to reasonable limitations to protect confidential information as provided below, disclose all information on such

provisions envision a culture of constant communication and feedback from the public regarding biosafety decisions, risk assessment processes, product monitoring, and product identification.

Executive Order No. 514, while not a statute, provides binding policies and rules for the executive agencies of government in their task of

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applications in a prompt and timely manner. Such departments and agencies may require applicants to provide the information directly to concerned stakeholders.
6.2 Confidential Information. In all applications for approvals, whether domestic or foreign, concerned departments and agencies shall ensure that it has procedures and regulations to determine and protect confidential information; Provided, however, that the concerned agencies may refuse declaring the confidentiality of such information if it is necessary to enable the concerned stakeholders to effectively conduct a scientific risk assessment.
6.3 Information on Biosafety Decisions. The public and stakeholders shall have access to all biosafety decisions and the information on which they are based, subject to limitations set in Section 6.2 of this Framework. Such decisions shall summarize the application, the results of the risk assessment, and other relevant assessments done, the public participation process followed, and the basis for approval or denial of the application.
6.4 Information on Risk Management, Product Monitoring, and Product Identification. All relevant stakeholders shall have access to information related to risk management and product monitoring. Information on product identification shall be provided to the general public.

[42] Exec. Order No. 514, sec. 7. PUBLIC PARTICIPATION
The concerned government departments and agencies, in developing and adopting biosafety policies, guidelines and measures and in making biosafety decisions, shall promote, facilitate, and conduct public awareness, education, meaningful, responsible, and accountable participation. They shall incorporate into their respective administrative issuances and processes best practices and mechanisms on public participation in accordance with the following guidelines:
7.1 Scope of Public Participation. Public participation shall apply to all stages of the biosafety decision-making process from the time the application is received. For applications on biotechnology activities related to research and development, limited primarily for contained use, notice of the filing of such application with the NCBP shall be sufficient, unless the NCBP deems that public interest and welfare requires otherwise.
7.2 Minimum Requirements of Public Participation. In conducting public participation processes, the following minimum requirements shall be followed:
7.2.1 Notice to all concerned stakeholders, in a language understood by them and through media to which they have access. Such notice must be adequate, timely, and effective and posted prominently in public places in the areas affected, and in the case of commercial releases, in the national print media. In all cases, such notices must be posted electronically in the internet;
7.2.2 Adequate and reasonable time frames for public participation procedures. Such procedures should allow relevant stakeholders to understand and analyze the benefits and risks, consult with independent experts, and make timely interventions. Concerned departments and agencies shall include in their appropriate rules and regulations specific time frames for their respective public participation processes, including setting a minimum time frame as may be appropriate;
7.2.3 Public consultations, as a way to secure wide input into the decisions that are to be made. These could include formal hearings in certain cases, or solicitation of public comments, particularly where there is public controversy about the proposed activities. Public consultations shall encourage exchanges of information between applicants and the public before the application is acted upon. Dialogue and consensus-building among all stakeholders shall be encouraged. Concerned departments and agencies shall specify in their appropriate rules and regulations the stages when public consultations are appropriate, the specific time frames for such consultations, and the circumstances when formal hearings will be required, including guidelines to ensure orderly proceedings. The networks of agricultural and fisheries councils, indigenous peoples and community-based organizations in affected areas shall be utilized;
7.2.4 Written submissions. Procedures for public participation shall include mechanisms that allow public participation in writing or through public hearings, as appropriate, and which allow the submission of any positions, comments, information, analyses or opinions. Concerned departments and agencies shall include in their appropriate rules and regulations the stages when and the process to be followed for submitting written comments; and,
7.2.5 Consideration of public concerns in the decision-making phase following consultation and submission of written comments. Public concerns as reflected through the procedures for public participation shall be considered in making the decision. The public shall be informed of the final decision promptly, have access to the decision, and shall be provided with the reasons and considerations resulting in the decision, upon request.

implementing its legal obligations under the Cartagena Protocol. Hence, all actions of agencies involved in the execution of biosafety in the Philippines must follow the Cartagena Protocol, the National Biosafety Framework, and our Constitution.

Like the National Biosafety Framework established by Executive Order No. 514, Administrative Order No. 8 cites the Cartagena Protocol as a source of obligation of the state to regulate transgenic plants.[43]

Administrative Order No. 8 fails to meet certain standards required under the Cartagena Protocol.

This Order requires an applicant for field testing of a regulated article to create an Institutional Biosafety Committee. It is the applicant who chooses the members of the Institutional Biosafety Committee.

The composition of the Institutional Biosafety Committee includes three scientist members and two community representatives who "shall not be affiliated with the applicant apart from being members of its [Institutional Biosafety Committee] and shall be in a position to represent the interests of the communities where the field testing is to be conducted."[44] As an apparent assurance for the lack of bias of these community representatives, the National Committee on Biosafety of the Philippines must approve the composition of the Institutional Biosafety Committee.[45]

The manner of choosing the composition of the Institutional Biosafety Committee is problematic. It reduces meaningful compliance in our commitments enunciated in the Cartagena Protocol into mere artifice. It defies the guidelines set by the National Biosafety Framework.

Both the Cartagena Protocol and National Biosafety Framework require participation from community members. However, in Administrative Order No. 8, the applicant has the initial choice as to the community representatives who will participate as members of the Institutional Biosafety Committee. The approval by the National Committee on Biosafety of the Philippines is not a sufficient mechanism to check this discretion. This interagency committee can only approve or disapprove community representatives that were already selected by the applicant. The applicant does not have any incentive to choose the critical community representatives. The tendency would be to choose those whose dissenting voices are tolerable. Worse, the National Committee on Biosafety of the Philippines, apart from not being a sufficient oversight for people's

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43 DA Adm. Order No. 8 (2002), Whereas clause.
44 DA Adm. Order No. 8 (2002), sec. 1(L).
45 DA Adm. Order No. 8 (2002), sec. 1(L).

participation, is a government body. A government body is not the community that should supposedly be represented in the Institutional Biosafety Committee.

In addition, there are other problems with public participation in Administrative Order No. 8. For field testing under Administrative Order No. 8, the only opportunity for public participation is under Sections 8(G) and 8(H). Under Section 8(G), the public consultation on an application is prompted by the posting of the Public Information Sheet on Field Testing, which shall be posted in three conspicuous places in the barangay/city/municipality for three consecutive weeks. The interested party is given thirty (30) days within which to file a written comment on the application.

The posting of the Public Information Sheet in three conspicuous places near the field testing site is not enough to raise awareness regarding the field testing being applied for. The subject matter in transgenic transformation is too complex and its consequences too pervasive as to simply leave this through the fictional notice of public posting. The positive duty of the state requires more in terms of the creation of public awareness and understanding. For instance, the Department of Agriculture is competent and large enough so as to make actual face to face community meetings reasonable.

Also, under the National Biosafety Framework, there must be posting on the Internet to capture the attention of relevant stakeholders.[46] This is not required under Section 8(G).

The mechanism under Administrative Order No. 8 does not even require that local government authorities be apprised about the proposed field testing. Certainly, engaging local government authorities invites more meaningful public discourse.

Section 8(H) requires the creation of a Scientific and Technical Review Panel. This is a group of three independent scientists that reviews the risk assessment conducted by the Institutional Biosafety Committee. The Scientific and Technical Review Panel does not have a community representative. It is also tasked to evaluate—based on the individual scientist's own standards—whether the proposed field testing poses significant risks on human health and the environment. How the points raised during the mandatory public hearings will be considered in the issuance of the field testing permits is not covered by Administrative Order No. 8. In this regard, there is no standard or process.

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[46] Exec. Order No. 514, sec. 7.2.1.

The nonchalant attitude of the regulatory framework is best seen in this case. Petitioners alleged that there was some public consultation prior to field testing. These consultations, however, were not documented. The only proof of such consultation was a bare allegation made by Miss Merle Palacpac of the Department of Agriculture in her judicial affidavit.[47]

The absence of an effective mechanism for public feedback during the application process for field testing means that Administrative Order No. 8 fails in meeting the public participation requirement of the Cartagena Protocol and the National Biosafety Framework. The current mechanisms have all the badges of a "greenwash":[48] merely an exhibition of symbolic compliance to environmental and biosafety policy.

The insouciant approach to public participation during the application process is obvious as there is no appeal procedure for third parties under Administrative Order No. 8. The regulation does not consider that communities affected may want to question the exercise of discretion by the Department of Agriculture or the Bureau of Plant Industry. Section 18 of Administrative Order No. 8 only covers appeals for "[a]ny person whose permit has been revoked or has been denied a permit or whose petition for delisting has been denied by the Director of [Bureau of Plant Industry]." Procedural due process is taken away from the public.

VI

Due to these fundamental deficiencies, Administrative Order No. 8 is null and void. In its present form, it cannot be used as the guidelines to regulate further field testing or commercial propagation of Bt talong. Until a law or a new regulation is passed consistent with the Constitution, our treaty obligations, and our laws, no genetically modified ingredient process or product can be allowed to be imported, field tested, or commercially propagated.

VII

Science is not just a body of knowledge; it is the result of the application of the scientific methodology.[49] The direction of the methodology depends on the objective of each study or research. The

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47 Judicial Affidavit of Merle Bautista Palacpac dated Feb. 4, 2013, pp. 16–17, par. 56.

48 The term is often used in reference to businesses and corporations that mislead consumers about the business' environmental performance or the environmental benefits of a product. Magali A. Delmas and Vanessa Cuerel Burbano, *The Drivers of Greenwashing* <http://www.ioe.ucla.edu/media/files/Delmas-Burbano-CMR-2011-gd-ldh.pdf> (visited December 1, 2015).

49 Mother and Child Health: Research Methods, Chapter 1: Scientific Method 1 <http://www.oxfordjournals.org/our_journals/tropej/online/ce_ch1.pdf> (visited December 1, 2015).

scientific methodology tests a hypothesis, or a proposed statement of relationships between factors or variables that acts as a tentative answer to a specific research question.[50]

From the hypothesis, a scientist reviews related literature and records observations relating to the hypothesis. Sampling, observations, and measurements must be **accurate and replicable**. These areas are vulnerable to errors that may distort a research's conclusions.[51] In order to confirm found observations, a scientist can design tests in order to make observations under controlled conditions.[52]

This basic process is also found in the environmental risk assessments conducted for transgenic crops. There are four important steps in Environmental Risk Assessments:

(1) Initial evaluation – This step determines whether risk assessment is required.

(2) Problem formulation – This step involves the formulation of risk hypothesis to be tested in the laboratory and field. An example of a risk hypothesis is whether the transgenic crop affects nontargeted organisms.

(3) Controlled experiment and gathering information – These are done first in the laboratory, and then under controlled field conditions.

(4) Risk evaluation[53]

The results of scientific experimentation with transgenic crops form part of science. However, these research articles must be rigorously and deliberately examined to scrutinize their subject matter, the hypothesis and methodology deployed, and the cogency of the conclusions drawn from the observed findings.

Certainly, the conclusions in studies concerning Bt maize may not always be valid with respect to Bt talong. Some of the variables may be the same. Obviously, both transgenic crops include the vector *bacillus thuringiensis*. However, there will also be obvious differences because of the difference of the crops, their behavior in various environments, the manner in which they reproduce, their uses, and their consequences.

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50 Id. at 3.
51 Id. at 4.
52 Id. at 6.
53 Detlef Bartsch, et al., *Field Testing of Transgenic Plants* in PLANT BIOTECHNOLOGY AND GENETICS: PRINCIPLES, TECHNIQUES, AND APPLICATIONS 313 (2008).

Currently, there is more literature regarding the viability and safety of Bt maize because it is already being commercially propagated. On the other hand, Bt talong is still being studied and assessed and is not yet ready for commercial release. The application for field testing for Bt talong under the correct conditions is itself part of the scientific inquiry to test hypotheses both for or against its propagation.

The Court of Appeals, instead of relying on these standards of science, employed a "hot tub" examination of experts. It took into account literature on Bt maize or Bt cotton, and various arguments and studies conducted for Bt maize. It then made conclusions, without a rigorous explanation of its methodology and standards for credibility, from these studies.

Without these rigorous explanations, the Court of Appeals committed grave abuse of discretion when it considered Bt maize research. Ideally, the Court of Appeals should have scrutinized the results of the contained experimentation with respect to Bt talong because the results were the basis for the Bureau of Plant Industry's allowance of field testing.[54] It should have examined whether the experimentation conducted may be replicated and whether it will yield the same result.

The experts could have also been asked individually about the results of contained experimentation and if the contained experiments answered research objectives relating not only to the viability of the product, but the impact to the environment should the product undergo field testing. The first objective is in line with the commercial interests of the applicant, while the latter objective is more in tune with the state's policy of protecting the right of the people to a balanced and healthful ecology. The imposition of the latter objective should have been the role of the Bureau of Plant Industry because it was the authorizing agency for field testing permits.

The Court of Appeals committed grave abuse of discretion by relying only on the study of Dr. Gilles-Eric Seralini who made a study involving a completely different transgenic crop. This court tasked the Court of Appeals to assess the propriety of the issuance of field testing permits with respect to Bt talong, not to draw conclusions about Bt talong based on one scientific literature on Bt maize.

The results of the field testing of Bt talong should still be subject to confirmatory tests involving the same variables in order to attain a level of statistical reliability. However, these subsequent field testing must be done under regulations consistent with our Constitution and international

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[54] Petition of Environmental Management Bureau, et al., Annex "E".

obligations. They must be conducted under a regulatory agency that will have the competence to be actively involved in the scientific inquiry.

VIII

The results of this case are neither an endorsement nor a repudiation of genetically modified ingredients, processes, and food products. This should neither be interpreted as a rebuke of the avowed mandates of respondents, many of whom have distinguished themselves in their advocacies.

Certainly, there is a need for leaders, organizations, and dedicated movements that amplify the concerns of communities, groups, and identities which tend to be put in the margins of forums dominated by larger and more politically connected commercial interests. This includes forums that create and implement regulatory frameworks. Liberal democratic deliberations at times fail to represent the silenced majority as it succumbs to the powerful minority.

While acknowledging this reality, we also need to be careful that the chambers of this court do not substitute for the needed political debate on public issues or the analytical rigor required by truths in science. We are Justices primarily. While politics and science envelope some of our important decisions, we should not lose the humility that the Constitution itself requires of us. We are an important part of the constitutional order: always only a part, never one that should dominate. Our decisions have the veneer of finality. It should never, however, be disguised superiority in any form or manner.

Political debates indeed also mature when we pronounce the nature of fundamental rights in concrete cases. Before cases ripen—or, as in this case, when it has become moot—restraint will be the better approach. We participate in the shaping of the content of these fundamental rights only with the guidance of an actual case. This, among others, distinguishes the judicial function from the purely political engagement.

Restraint is especially required when the remedy chosen is a Petition for the issuance of a Writ of Kalikasan, which is designed to prevent an actual or imminent environmental catastrophe. Again, in this case, the field testing ended. There is yet no permit to commercially propagate Bt talong. The results of the field testing of the genetically modified food crop have not been presented for evaluation by any of the relevant agencies charged with its eventual regulation. Moreover, the results of the field testing have not been presented for proper public scrutiny.

If any, the resolution of this case implies rigor in environmental advocacy. Vigilance and passion are the hallmarks of the public interest movement. There is no reason that the members of this movement should not evolve the proper skills and attitudes to properly work the legal system and understand the role of the judicial process. Environmental advocacy also requires an understanding of science and the locating of the proper place of various norms such as the precautionary principle. After all, representation of marginalized community voices deserves excellent representation and responsible leadership. Filing a judicial remedy almost two years too late and without the required scientific rigor patently required by the allegations and the arguments misses these standards.

But, we cannot just leave things as they are especially when patent unconstitutional provisions surface and where deference will amount to a denial of the positive constitutional duties we are required to discharge. There are grave errors in Administrative Order No. 8 that stack decisions made by the Department of Agriculture and the Bureau of Plant Industry in favor of the commercial applicant. We have so far only evaluated the provisions in accordance with law and found them wanting. By declaring Administrative Order No. 8 null and void, there is now incentive for either Congress or our administrative bodies to review the present regulatory framework and bring it not only to legal fiat but also to address all concerns including those voiced by respondents in this case.

Food safety and food security are vital for the assurance of human dignity. We can only hope that the complex issues relating to genetic modification of the food we eat be debated deliberately, vigorously, and with all the scientific rigor and rationality required in the proper public forums. Food safety and food security are complex issues requiring the benefit of all the wisdom of all our people.

ACCORDINGLY, I vote to declare Administrative Order No. 8, Series of 2002, of the Department of Agriculture null and void, being violative of the Constitution, our treaty obligations under the Cartagena Protocol, and the instructions of the President under Executive Order No. 514.

MARVIC M.V.F. LEONEN
Associate Justice