Content Analysis of Legal Documents Related to the Bt Talong Case

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Presentation Flow

- I. Background
- II. Objectives
- III. Methodology
- IV. Findings
- V. Recommendations

I. Background

2015/2016 Supreme Court Bt Talong Case Decisions

G.R. Nos. 209271, 209276, 209301, 209430

2010 BtTalong Field Tests









Issues in the original petition (CA)

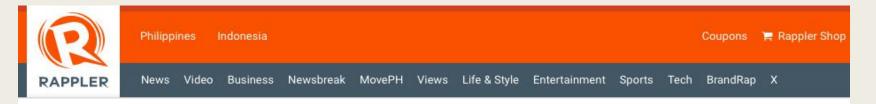
LEGAL/PROCEDURAL

- Public agencies <u>compliance</u> with mandate and policies
 - Need for Environmental Compliance Certificate
 - No consultations required by the Local Government Code
- Legal standing of Petitioners
- Mootness of the case
- Non-exhaustion of administrative remedies

SCIENCE-BASED/ SUBSTANTIVE

- Harm (allegedly no proof of safety for consumption and environment)
 - Bt Corn's harmful effects on rats
 - Bt Talong toxicity to non-target species
 - Results to resistant pests and increased pesticide use
 - Field trial hazards (pollen trap not sufficient)

Law and Science Interface



THOUGHT LEADERS

The SC kills Bt talong, and takes down Philippine science as well

A Filipino scientist blasts Supreme Court justices for ruling against GMO field trials, debunking claims they're not safe

Michael Purugganan

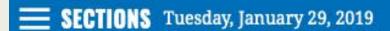
Published 6:45 PM, December 09, 2015 Updated 12:35 PM, January 01, 2016



"No consensus on safety," says the headline as news outlets reported yesterday that the Supreme Court has banned field trials for Bt talong, a GMO eggplant developed to resist pests.



Law and Science Interface





Dark day for science

By: Mark Lynas - @inquirerdotnet 01:21 AM December 15, 2015

THE DECISION by the Philippines' Supreme Court to uphold the ban on GMO Bt talong (eggplant) field trials is a huge disappointment to the scientific community and others pursuing the dream of sustainable and progressive agriculture in this country.

II. Objectives of the Study

Analyse how *science* was reflected in court documents related to the Bt Talong case

- 1. What are the primary *elements of science-related legal arguments* in the Bt Talong Supreme Court decisions?
- 2. What were the *contexts of the Justices' inquiries* to scientists during the Court of Appeals "hot-tub" discussion?
- 3. What are the *emerging science-related themes* in the Bt Talong decisions of the Court of Appeals and the Supreme Court?

Science: Reference to or reliance on principles, explanations or claims based on empirical data, as opposed to reasoning based primarily on statutes, laws, precedents and other legal texts applicable to a specific set of facts/situation

III. Methodology

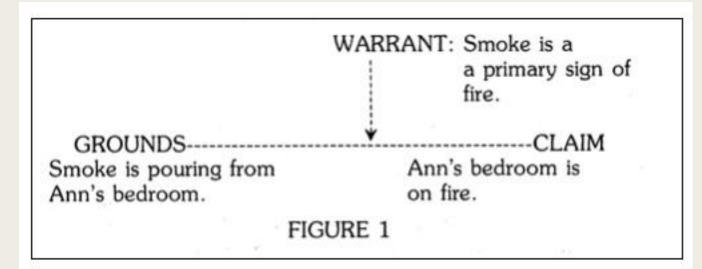
Mixed-approach Content Analysis of Bt Talong case legal texts

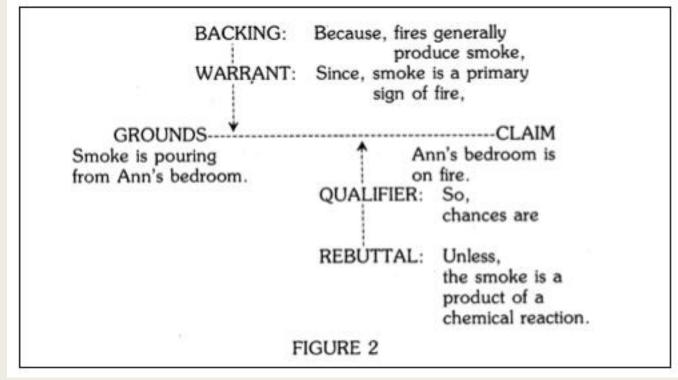
- Court of Appeals 2013 Decision
- Transcript of Stenographic Notes (TSN) on CA hot-tub discussion
- Supreme Court 2015 Decision, with concurring opinions
- Supreme Court 2016 Decision, with concurring opinion

- Document review
- Decisions
 - Analysis of key arguments using Toulmin's Model of Argumentation
- TSN
 - Tabular organization of questions, rhetoric, answers
 - Coding into themes

Toulmin's Model of Argumentation

Illustration from Karback, 1987





Limitations of the study

Content based on articulated views of CA and SC Justices only in decisions and hot-tub TSN (CA only) in Bt Talong case

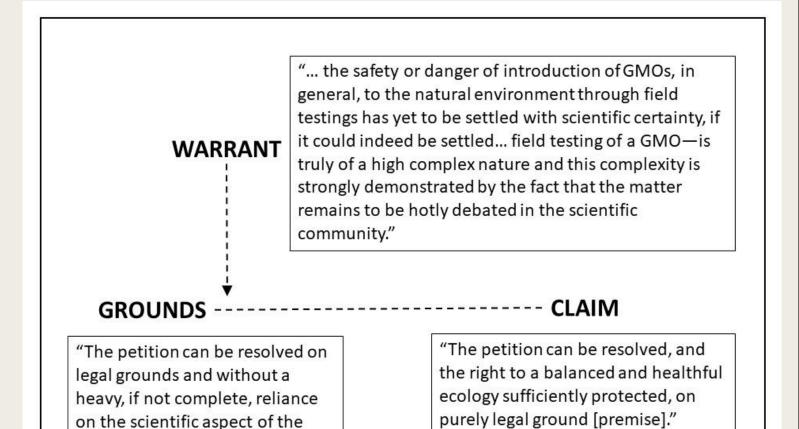
- Not a discourse analysis
- Not an assessment of legal correctness nor judicial reasoning
- Decisions and TSN are based on framing of issues and presentation of facts
- Other legal documents (pleadings, evidence, etc.) excluded in the study
- Views of other members of the legal profession (practicing lawyers) may differ
- Views may differ in other science-related issues (e.g. mining and environment)

RQ1: What are the primary elements of science-related legal arguments in the Bt Talong Supreme Court decisions?

Argument 1:

Sufficiency of legal grounds resolves petition amidst limitations on scientific evidence, using Toulmin Model of Argumentation

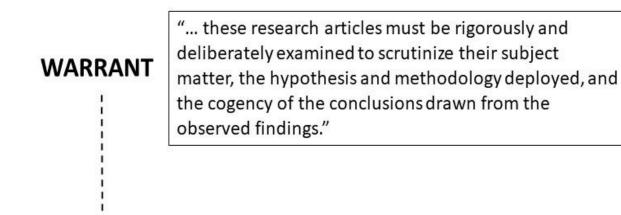
case."



RQ1: What are the primary elements of science-related legal arguments in the Bt Talong Supreme Court decisions?

Argument 2:

Part of science is the scientific experimentation of transgenic crops, such as the Bt Talong



"... 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... 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."

GROUNDS

"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."

CLAIM

RQ2: What were the *contexts of the Justices' inquiries* to scientists during the Court of Appeals "hot-tub" discussion?

Primary contexts in the CA hot-tub discussion (ranked by frequency in discussion)

- Science behind and nature of Bt Talong and GMO
- 2 Public health safety of Bt Talong and other GM products
- Food security benefits of Bt Talong
- 4 Information about the field trials
- Regulatory implications of pursuing Bt Talong field trials

"You have to <u>educate</u> me, the affidavit states, this is the affidavit of Science Expert C, states that Bt or "Bacillus thuriengensis" is a protein. Am I correct, sir? It is a bacteria."

"So, am I <u>correct to understand</u>, so the eggplant has a specific <u>DNA structure</u>, and in order to recreate the Bt Eggplant your injected the Bt Protein to change the DNA structure?"

"So the <u>protein</u> is the result of the introduction of this particular bacterium into the DNA..."

"Yes, and then, so basically the building blocks of organisms are protein, am I correct? The DNA made of protein."

Questions of a CA Associate Justice B during hot-tub discussion

"Are you aware of a study, Science Expert C, released in September 20 of this year saying that Monsanto's genetically modified corn is linked to <u>cancer</u>?"

"Has anybody here eaten Bt Talong? Because as the famous statement runs – 'the proof of the pudding is in the eating'"

"So what is the absolute certainty that it is safe for human consumption?"

Questions of a CA Associate Justice A during hot-tub discussion

"How much is the <u>increase in crop yield</u>? Because if I understand correctly the Bt only kills certain insect just one and then they said that you have to apply other pesticide so is it worth it. I want to know the increase in the crop yield if you still have to use other kinds of pesticides and if this pesticide could already kill the borer then you wish to avoid necessitating the use of the Bt."

"So that this makes me raise to the question. Will the introduction of Bt Talong in this country, not threaten food security?"

Questions of a CA Associate Justice A during hot-tub discussion

"But it is not that the respondents, respondent UP Los Baños had already finished the <u>field trials</u>? What are the <u>results</u>? What are the findings?"

"And I was wondering in the conduct of tests, the field testing, you see we are not talking of the human consumption as them (sic) yet but the actual field testing, what would be the effect of the planting... of the existence of the genetically modified organism for example on insects, on the soil, on the air, and then I was thinking does this have, this particular protein that results due to the genetic modification, is it... how is it expelled, for example how does it go inside and out of human system so that does it disintegrate or is just there forever, I am very curious, sir, you have to educate me."

Questions of a CA Associate Justice A during hot-tub discussion

Regulatory implications of pursuing Bt Talong field trials

"So this is only on the <u>regulatory aspect of the government agencies</u> or agencies who are conducting studies on this genetically modified plants? "

"With the position taken here by the petitioners, am I right when I say that ultimately you want all genetically modified plants not to be experimented in the Philippines? I am asking the petitioners?

So we are dealing here on Bt Talong, but I am saying now that also there is another plant for example Bt Okra or Bt Kamote, we should stop dealing with this genetically modified plants in the future, or is this a question only on the confined field trial or the contained field trial aspect only?"

Questions of a CA Associate Justice C during hot-tub discussion

RQ3: What are the *emerging science-related themes* in the Bt Talong decisions of the Court of Appeals and the Supreme Court?

- The quest for scientific certainty (guarantee, overall safety)
- 2 Reliance on popular scientific literature
- Opposing claims and contexts about the safety of Bt Talong
- Limited knowledge of the field trial process

V. Recommendations

- 1. Increase access of lawyers and public in general to credible scientific evidence
- 2. Build capacity of each profession (lawyers and scientists) to communicate the perspectives and methods of their respective fields
- 3. Promote inter-disciplinary understanding how law and science can complement each other
- 4. Invest in science communication

