
The Philippine Controversy Over Aerial Spraying of Pesticides: A Timeline of Selected Developments, 1997 – 2016

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List of Acronyms and Abbreviations

CHR	Commission on Human Rights
CSO	Civil Society Organisation
DA	Department of Agriculture
DENR	Department of Environment and Natural Resources
DOH	Department of Health
DTI	Department of Trade and Industry
EMB	Environmental Management Bureau
FPA	Fertilizer and Pesticide Authority
IACEH	Inter-Agency Committee on Environmental Health
IDIS	Interface Development Interventions Inc.
LGU	Local Government Unit
MAAS	Mamamayan Ayaw sa Aerial Spraying
NTFAAS	National Task Force Against Aerial Spraying
OPAFSAM	Office of the Presidential Assistant on Food Security and Agricultural Modernisation
PBGEA	Pilipino Banana Growers and Exporters Association
PCSD	Philippine Council for Sustainable Development
PMS	Presidential Management Staff Office
PMS-SPO	Presidential Management Staff – Social Policy Office

Introduction

This report is a background document for Nikol and Jansen (2018) and provides a comprehensive overview of the developments and events of the Philippine struggle for regulation on aerial spraying of pesticides between 1997–2016. The information provided is relevant to outline and analyse the civil society lobby as it contested the practice of aerial pesticide spraying on large banana plantations on the island of Mindanao. It helps examine the following: 1) how the civil society lobby engaged in a politics of expertise, 2) how civil society level evolved over time and in response to particular events, 3) how counter-expertise developed, 4) which organisations develop it, 5) the specific lobby activities it is used for, 6) the level of government at which the struggle took place, 7) which government representatives and offices were addressed, 8) how and with whom civil society organisations collaborated, 9) which government representatives are allies, and 10) how pro-aerial spraying stakeholders (i.e. banana growers/ banana companies, government representative and offices) responded to lobby efforts. This report lists passed laws, proposed laws, lobby activities, state-civil society interactions, research conducted and published, and a series of lawsuits that represent the response of banana growers and companies. It also includes preliminary analytical observations and comments of the authors, to guide the reader on significance, influence, and sequences of events or to provide contextual information.

The events and activities in the civil society lobby included in this list are relevant for the analysis of the politics of counter-expertise in the struggles for regulations of aerial spraying presented in Nikol and Jansen (2018). This research contributes to the recent literature on the role of social movements in the transformation of pesticide risk regulation (Bohme 2014; Harrison 2011; Barraza et al. 2013; Jansen and Dubois 2014; Arancibia 2016; Lapegna 2016; Perkins 2012; Zwetsloot et al. 2018). The article describes how the struggles started in the early 2000s in Davao City, Mindanao, with the filing of a proposed regional ordinance to ban aerial spraying. As the ban was passed and banana growers filed a lawsuit for unconstitutionality (that was taken through several courts up to the Supreme Court), the civil society lobby against aerial spraying shifted from the regional government in Davao City to national government in Manila. In its lobby, civil society organisations like MAAS and IDIS developed counter-expertise, such as health studies, drift studies, economic studies, and narrations of residents experiences (ethnographic expertise), to challenge existing assumptions of who has legitimate or acceptable knowledge about pesticide risks.

Methodology

For this research, we collected and analysed 165 documents (government documents such as House Bills, media items such as newspaper articles, press releases, blog posts, and internet sites, and unpublished reports), complemented with literature on the Philippine state, and telephone interviews and email communications with MAAS and IDIS. The internet was a rich source, as Philippine organisations and government have a comprehensive online presence on their own websites, in media such as newspapers and blogs, and social media like Facebook. Documents were downloaded from government databases, newspaper websites, and civil society organisation's websites, or HTML sites converted into PDFs (mostly newspaper articles, blog

posts, and social media posts). A handful of government documents was obtained via request to the Philippine House of Representatives. The snowball technique proved very useful to guide our search, as documents refer to events, persons, organisations, or other documents that are relevant.

Most of the table below is based on an existing time line of events prepared by IDIS (2014), but has been modified: some entries have been left out, most rewritten, and entries have been added, especially but not exclusively post-2014 (when IDIS' original table ended). To the best of our abilities, we have added references to official government documents, media, web-, and other sources that verify the events, shed light on their role or significance, or point to how they are framed by the civil society lobby. However, plenty of entries are based on IDIS staff's experience and engagement with government actors and could therefore not be verified with external sources. The table is structured as a timeline of events and includes a separate column for codes to indicate which sequence particular events belong to, matching to some extent the chapters of Nikol and Jansen (2018), and indicating chronological order. A separate overview has been made for all the House Bills filed, to indicate the sequences of the same Bill filed in different Congresses (next section).

Coding:

EO-xx	Efforts to issue executive orders
AO-xx	Efforts to issue new legislative (in Congress)
RL-xx	Steps towards regional legislation (Davao City Ordinance 0309-07)
CE-xx	Development of counter-expertise (research/publication of studies and ethnographic expertise)
LP-xx	Lawsuits & litigation against private entities and persons

The codes have been devised to match the structure and argumentation of Nikol and Jansen (2018). The first three codes (EO, AO, RL) parallel the three main sub-sections outlining the specifically targeted efforts of the civil society lobby addressing different sections and levels of the government. In Nikol and Jansen (2018), we argue for a central role of counter-expertise¹ in the civil society lobby, which consists not only of studies developing systematising expertise "often the purview of scientists" (Nikol and Jansen 2018) who use and rely on their professional knowledge and experience to conduct these studies. Other types of counter expertise include collecting and framing ethnographic expertise in the form of residents' narrated experiences and organisational expertise referring to "networking with allies and linking and translating the anti-

¹ In the article we argue that conceptualising counter expertise "is only possible when no strict boundaries are drawn between scientific and non-scientific expertise: counter-expertise is not limited to the work of scientists." (Nikol and Jansen 2018) It "encompasses multiple kinds of knowledge and ways of knowing, *including* [but not limited to] the use of science to reveal facts such as higher disease incidence due to pesticide spraying and people's experience of suffering. As Arancibia (2016, 480) points out, 'in public scientific controversy, the conflict is not between scientists, on the one hand, and a 'pure lay community', on the other. Controversy is between mixed groupings that include both experts and lay people.' Counter-expertise also connects with the concept of collective action by social movements. It has to be developed, mobilised and supported by other political actions, including both lobbying/advocacy and building alliances, in order to become effective." (Nikol and Jansen 2018, emphasis added)

aerial spraying goals to the goals of like-minded organisations” and “dealing with different levels of government and the capacity to maintain an organisation’s funding and to keep it running” (Nikol and Jansen 2018). It should be noted that in this timeline counter-expertise is not just developed or used where the code is applied, but it is oftentimes part of other events and strategies (e.g. lobby visits to executive departments and awareness raising through briefing letters and press releases). The code for lawsuits and litigations helps keep track of the multiple lawsuits filed by the Philippine banana company LADECO against Dr Quijano, his daughter, the newspaper they published their report in, and the research team of the Department of Health (DOH); i.e. all actors involved in developing counter-expertise based on the experiences of the residents of Kamukhaan, a village located close to one of LADECO’s plantations.

Overview of House Bills filed

A number of Bills propose new regulation of aerial spraying. 13 House Bills have been filed in Congress between 2010 and 2016, spanning three administrations and four Congresses. None of the House Bills thus far have surpassed the status ‘pending’, and except for those filed during the current, 17th Congress, all have ‘died’, a colloquial expression for House Bills that are not passed during a sitting Congress (to be passed, they require multiple hearings in the House of Representatives and the Senate). When Congress changes after elections, all House Bills that have not been passed become invalid (thus ‘die’) and have to be refiled in the next Congress to be considered by the sitting administration (personal communication, AKBAYAN staff).

What follows is an overview of House Bills that are part of a series and which died and were re-filed in different administrations. The House Bills within a series usually carry the identical title, contents has often been revised a little, and they are usually filed by the same (group of) representative(s) or party-list(s). Two series of House Bills that aim to suspend aerial spraying, share very strong similarities. The five House Bills providing new regulation in the form of application requirements for aerial spraying, though from two different series, are almost identical.

Apart from the similarities within the series of House Bills, it has to be observed to what extent they reflect a heterogeneity and lack of transparency over mandates within the Philippine state. Comparing House Bills 3381 and 3857 shows that the authors allocated the responsibilities for implementation to different governmental departments. While House Bill no. 3381 assigns this to the Fertilizer and Pesticide Authority (FPA), House Bill no. 3857 assigns this to the Departments of the Interior and Local Government (DILG), Agriculture (DA), Environment and Natural Resources (DENR), Health (DOH) and the Bureau of Rural Works.

The efforts for legislation at the national level have taken place in four Congresses²:

14th Congress: July 23, 2007– June 9, 2010

15th Congress: July 26, 2010 – June 6, 2013

16th Congress: July 22, 2013 – June 6, 2016

17th Congress: July 25, 2016 – June 2019

The general struggles and events cover four administrations, to be known Estrada (1998-2002), Arroyo (2002-2004; 2004-2010)³, Aquino III (2010-2016), and Duterte (2016-present).

The series of House Bills filed in the House of Representatives include:

“An Act Prohibiting Aerial Spraying as a Method of Applying Chemicals and Similar Substances on Agricultural Crops”, House Bill No. 5249, No 3857, No 0339 and No 4491 (Prohibiting)

Code	House Bill no.	Authors	Congress	Date read
AO-08	5249	Representatives Luzviminda C. Ilagan and Emma A. De Jesus (GABRIELA Women’s Party)	15th	
AO-15	3857	Representatives Luzviminda C. Ilagan and Emmi A. De Jesus (GABRIELA Women’s Party), Neri J. Colmenares and Carlos Isagani T Zarate (BAYAN Muna), Antonio L. Tinio (ACT Teachers Partylist), Fernando Hicap (Anakpawis), and James Terry L. Ridon (Kabataan)	16th	09.06.15
AO-21	0339	Representative Tomasito S. Villarin (AKBAYAN)	17th	
AO-24	4491	Representatives Emmi A. de Jesus and Arlene D. Brosas (GABRIELA Women’s Party), Carlos Isaganti T. Zarate (BAYAN Muna), Antonio L. Tinio and France L. Castro (ACT Teachers Partylist), Ariel Casilao (Anakpawis), and Sarah Jane I. Elago (Kabataan)	17th	

(Ilagan and De Jesus 2011; Ilagan et al. 2014; Villarin 2016; De Jesus et al. 2016)

² Each Congress has a three year term. Elections for the House of Representatives take place every 3 years, granting representatives three year terms, while Senators serve a six year term with half of the Senate seats up for election during each of the triannual elections (thus, every three years, half of the Senate changes) (Abinales and Amoroso 2017).

³ Philippine Presidents get a single six-year term. However, Arroyo was Vice-President under Estrada and succeeded him after he was ousted following corruption charges against him and his ‘midnight cabinet’. She served the remaining two years of his administration until 2004. In 2004, she was elected for an own term of six years (Abinales and Amoroso 2017).

“An Act Providing for the Ban of Aerial Spraying of Pesticides and Other Hazardous Substances and for other Purposes”, House Bill No. 0481, No. 3381, No. 0768 (Ban)

Code	House Bill no.	Authors	Congress	Date read
AO-05	0481	Representatives Kaka Bag-ao and Walden Bello (AKBAYAN)	15th	
AO-14	3381	Representatives Ibarra “Barry” M. Gutierrez and Walden F. Bello (AKBAYAN)	16th	09.06.15
AO-22	0768	Representative Emmeline Y Aglipay-Villar (DIWA)	17th	

(Bag-ao and Bello 2010; Gutierrez and Bello 2013; Aglipay-Villar 2016)

“An Act Banning Aerial Spraying in the Country”, House Bill No. 2803

Code	House Bill no.	Authors	Congress	Date read
AO-07	2803	Representatives Rufus B Rodriguez (district Cagayan de Oro) and Maximo B. Rodriguez Jr. (Abante Mindanao)	15th	

(Rodriguez and Rodriguez Jr. 2010)

“An Act Regulating Aerial Spraying of Pesticides and Fungicides on Agricultural Crops and Providing Penalties for Violation Thereof”, House Bill No. 5550, No. 2552, No. 4451 (regulating)

Code	House Bill no.	Authors	Congress	Date read
AO-09	5550	Representative Raymond Decomcrito C. Mendoza (TUCP)	15th	
AO-13	2552	Representative Raymond Democrito C. Mendoza (TUCP)	16th	09.06.15
AO-23	4451	Representative Raymond Democrito C. Mendoza (TUCP)	17th	

(Mendoza 2011, 2013, 2016)

“An Act Regulating Aerial Spray in Farmlands and Fruit Plantations and Providing Penalties for Violation Thereof”, House Bill No. 2515, No. 1864 (regulating)

Code	House Bill no.	Authors	Congress	Date read
AO-06	2515	Representative Jonathan Cabilao Yambao (district Zamboanga Sibugay)	15th	
AO-11	1864	Representative Belma Arellano Cabilao (district Zamboanga Sibugay)	16th	

(Cabilao Yambao 2010; Cabilao 2013)

Timeline of important developments

When	Code	What
1997-2000	CE-01	<p>Dr Quijano and his daughter conduct fieldwork in Sitio Camocaan (Kamukhaan), Hagonoy, Davao del Sur, in 1997. They publish the results of their fieldwork in the Philippine Post (now defunct) in 2000. The report carries the title “Poisoned Lives” (IDIS 2014; Quijano 1999; Quijano 2002; Quijano and Quijano 2006).</p> <p>Comment: Their endeavours were funded by Greengrants via the Pesticide Action Network Asia and the Pacific (PAN-AP). Later on they received two more grants to continue documenting the health effects of aerial spraying in Kamukhaan, amongst others via a citizen monitoring programme (Wallar 2004).</p>
2000	LP-01	<p>LADECO, the Philippine banana company whose plantation is featured in “Poisoned Lives” and whose aerial spraying practices and resulting spray drift are associated with causing serious illnesses among residents, files criminal libel charges against Dr Quijano, his daughter, and the newspaper. The case is dismissed in favour of Dr Quijano, his daughter, and the newspaper as the court considers the article in the public’s interest (People’s Health Movement 2007; Wallar 2004).</p> <p>Comment: This was the first of many lawsuits against civil society actors in response to their anti-aerial spraying activities.</p>
2001	RL-01	Bukidnon Province bans aerial spraying through a local ordinance (IDIS 2005; 2015).
2002	LP-02	LADECO files civil charges for libel against Dr Quijano. The case lasts until 2007 (LP-04) (Business & Human Rights Resource Centre 2014; KMP Philippines 2015; People’s Health Movement 2007; Rengam and Ravindran 2015; Wallar 2004).
2003	CE-02	An International Fact Finding Mission does a follow-up on Dr Quijano’s study and publishes the results (Nisperos et al. in CBG 2003).
	LP-03	<p>Dr Quijano is arrested on 8 September on account of criminal charges, filed against him at the Department of Justice (Wallar 2004).</p> <p>Comment: The arrest happened long after the initial criminal charges had been dismissed (PL-01). It is unclear how renewed criminal charges could have been filed against Dr. Quijano at the DOJ, as they had already been dismissed in 2000. Wallar (2004) finds it important to mention that at the time, Lorenzo Jr was both CEO of LADECO and Secretary of</p>

		the DA (2002-2004) for Gloria Macapagal-Arroyo as she took over Presidency from the ousted Estrada. According to Wallar (2004), in his function Lorenzo was also responsible for pesticide policy and urged by Senator Pimentel to take the issues raised by Dr Quijano's report, and confirmed in Nisperos, seriously.
2004	CE-03	Panganiban et al. (2004) publish their article "Blood Ethylenethiourea and Thyroid Gland Disorders among Banana Plantation Workers in the Philippines".
	RL-02	North Cotabato bans aerial spraying by means of an Environmental Code (IDIS 2014).
2006	CE-04	Estrada (2006) publishes a study documenting "Health and Environmental Conditions of People Living in the Three Communities of Davao City Where Aerial Spraying of Pesticides is a Common Practice". Comment: The study was a collaboration between a health NGO, Kalusugan Alang sa Bayan, Inc. (KABAAY), and IDIS and was prepared for the Davao City Council as they were deciding about an aerial spray ban.
2007	LP-04	The Regional Trial Court dismisses all charges against Dr. Quijano in his favour (Business & Human Rights Resource Centre 2014; KMP Philippines 2015; People's Health Movement 2007; Rengam and Ravindran 2015; Wallar 2004).
	RL-03	The Davao City Council passes Davao City Ordinance 0309, banning aerial spraying in the Davao City administrative region (Office of the Davao City Council 2007).
	RL-04	Members of PBGEA, Davao Fruits, and LADECO respond and sue the ordinance for unconstitutionality. The Regional Trial Court rules the ordinance is valid and constitutional. PBGEA elevate the case to the Court of Appeals (Bersamin 2016; FIAN 2009; IDIS 2014; Philippine Daily Inquirer, August 22, 2015 ⁴ ; Philippine Daily Inquirer, August 22, 2016).
	RL-05	The LGU's Surallah and T'boli in South Cotabato follow the lead of Davao City and also pass ordinances banning aerial spraying (IDIS 2015). Comment: The passing of the Davao City Ordinance and the Regional Trial Court's decision were possibly incentives for these LGU's to pass their own bans. Based on our own speculation and communication with MAAS, we can think of a few potential reasons why the PBGEA only sued the Davao City Ordinance for unconstitutionality, and not the other regional ordinances: 1. Aerial spraying was not used as a pesticide application method in those regions (e.g. because there was no

⁴ Accessed September 07, 2016. <http://newsinfo.inquirer.net/808262/scvoidsordinancevsairalspraying>.

		heavy fungus infestation and/or no export banana production; aerial spraying was already prohibited through the plantations environmental compliance certificates), the bans had a more symbolic value; 2. The PBGEA targeted the Davao City Ordinance because it affected a major export banana production area and the outcome of litigation could have been used to undermine other ordinances later on.
August 2008	AO-01	Rep. Luz Ilagan files House Resolution 741 with the Committees on Ecology and Health to conduct an inquiry in aid of legislation into all possible alternatives to aerial pesticide spraying in plantations to avoid damage to the environment and to the health of plantation workers and adjacent community residents (IDIS 2014).
September 2008	AO-02	Rep. Prospero Nograles files House Resolution 154 directing the Committee on Ecology to conduct an inquiry in aid of legislation into all possible alternatives to aerial pesticide spraying in plantations to avoid damage to the environment and to the health of plantation workers and adjacent community residents (IDIS 2014).
December 2008	AO-03	<p>Senator Miriam Defensor Santiago files Senate Resolution 798 calling for an inquiry into the need to ban aerial spraying (IDIS 2014; Defensor Santiago 2008).</p> <p>Comment: In the Senate resolution, the Senator referred to MAAS and IDIS spokespersons, newspaper articles, and public protests against aerial spraying (Defensor Santiago 2008), indicating that the civil society strategy of creating awareness among the public and politicians was working.</p>
January 2009	RL-06 CE-05	<p>The Court of Appeals declares that Davao City Ordinance 0309-07 is unconstitutional. The Davao City Council and MAAS elevate the case to the Supreme Court. In the meantime, the Court of Appeals grants a preliminary injunction, allowing banana producers to continue aerial spraying of pesticides (Bersamin 2016; IDIS 2014; Philippine Daily Inquirer, August 22, 2015; Philippine Daily Inquirer, August 22, 2016).</p> <p>Following the decision of the Court of Appeals, FIAN International (Food First Information and Action Network) publishes a call to action in May, urging activists and the international community to address both the Chief Justice of the Supreme Court and President Arroyo to ban aerial spraying (FIAN International 2009). The call is signed 200 times by signatories from 44 countries. Signatories include “noted scientists and health experts” (Philippine Daily Inquirer, September 10, 2009⁵).</p>

⁵ Accessed October 12, 2016. <http://idisphil.org/category/end-poison-rain/page/6/>.

		<p>Comment: According to IDIS, the decision of the Court of Appeals discouraged other Mindanaoan LGU's to pass the aerial spray bans they had been preparing (personal communication).</p>
January 2009	EO-01	<p>The Commission on Human Rights releases a human rights advisory calling for the shelving of the aerial spraying practice, citing the precautionary principle and urging the President to issue an executive order stopping the practice (IDIS 2014).</p>
2009 (?)	CE-06	<p>A student of Kyoto University writes a thesis on aerial spraying of pesticides in banana plantations in the Philippines. Two chapters of the unpublished thesis manuscript include: “Distributional Effects of Ban on Aerial Spraying of Fungicides to Banana Companies.” And “Spatial Analysis of Pesticide Drift due to Aerial and Ground Spraying of Fungicide on Banana Plantations using Geographic Information System.” (Ocampo 2009a; 2009b)</p>
March/ April 2009	AO-04	<p>Senate Bill No. 3134 “An Act Providing for the Ban of Aerial Spraying of Hazardous Substances and for Other Purposes” Introduced by Senator Juan Miguel F. Zubiri Pending with the Committee on Agriculture and Food, and Health and Demography (IDIS 2014; Zubiri 2009)</p> <p>Comment: The bill does not surpass the status pending and ‘dies’ as the 14th Congress concludes.</p>
April 2009	EO-02	<p>The National Task Force Against Aerial Spraying (NTFAAS) submits a petition to the Fertilizer and Pesticides Authority (FPA) to ban aerial spraying in the entire country. The FPA asks pesticide and plantation companies to respond to the petition.</p> <p>Comment: We have no information on the follow-up for this petition (neither response of plantation companies to FPA request, nor FPA follow-up actions). This was one of the few instances where the anti-aerial spraying lobby directly addresses the FPA with their lobbying activities.</p>
April 2009	EO-03	<p>A meeting of the Inter-Agency Committee on Environmental Health (IACEH) takes place in Manila. IDIS and other NTFAAS partners attend the meeting. The DOH presents the findings of Dionisio et al. (2009), the study they commissioned in 2006, ‘Health and Environmental Assessment in Kamukhaan’. IACEH adopts the recommendations of</p>

		<p>the study and prepares a resolution to ban aerial spraying. The resolution needs to be signed by the department heads. Secretary Duque (DOH) signs the resolution (IDIS 2014).</p> <p>Comment: The DOH, DENR, DA, FPA had a seat in the IACEH; the DOH is convenor of meetings (IDIS 2014). The involvement of three executive departments and one executive authority body reflects the multidimensionality of aerial spraying as a policy issue. It might also indicate a lack of clarity about the mandates and authorities of the different executive bodies on this issue.</p>
May 2009	CE-07	The DOH presents its Health and Environmental Assessment study of Kamukhaan to the public (IDIS 2014). Findings include pesticide contamination through spray drift and illness among residents linked to spray drift. The study's recommendations include a ban on aerial spraying and the shift to organic agriculture (Dionisio et al. 2009).
22 July 2009	EO-04	<p>Another IACEH meeting to discuss the aerial spray ban. The DOH presents a draft health policy on pesticides outlining short, medium, and long term actions to protect public health. The aerial spray ban is included as one of the short-term actions within this draft policy. The aerial spraying issue is then given to the IACEH subcommittee on Toxic Substances and Hazardous Wastes, which has 15 days to give a final recommendation for appropriate action (IDIS 2014).</p> <p>Comment: The subcommittee was headed by the DENR (IDIS 2014). On the occasions of these meetings, IDIS (2014) mentions the presence of certain governmental departments. However, the documentation does not specify who or which representative was present, i.e. a high ranking official or a staff member.</p>
3 August 2009	EO-05	MAAS and NTFAAS meet with DENR Secretary Lito Atienza to discuss the aerial spray ban and the IACEH Subcommittee on Toxic Substances and Hazardous Wastes (IDIS 2014).
	EO-06	<p>The FPA publish the "Good Agricultural Practices on Aerial Spraying in Banana Plantations" (GAP) (FPA 2009; IDIS 2014)</p> <p>Comment: Much can be said about the timing of publishing the GAP. They were published in a series of interesting developments on aerial spraying: 6 months after the Senate Bill to ban aerial spraying had been filed (AO-04), the legality of the Davao City Ordinance was pending at the Supreme Court (RL-06), and developments at the executive level (IACEH) that gave the impression that the DOH and DENR would side with the anti-aerial spraying campaign (EO-04; EO-05; EO-</p>

		o6). The publishing of the GAP significantly influenced how these series of events developed in the short and longer terms. They turned out to be much to the benefit of the PBGEA.
14 August 2009	EO-07	<p>DENR Sec. Atienza issues a memorandum temporarily suspending aerial spraying in areas close to residential communities, adding that where this is not possible, adequate buffer zones are to be provided to prevent drifting of pesticides. The memo is not implemented by DENR field offices nor followed by plantation companies (IDIS 2014).</p> <p>Comment: We have been unable to retrieve the memorandum mentioned here, or other official government documents or press releases confirming its existence and the quoted passage. IDIS (2014) and Inside Mindanao (August 22, 2009⁶) mention it both, quoting the same passage. We did uncover a memorandum issued by the DENR Secretary Atienza in November that year, urging the strict implementation of the 50m buffer zone, not however suspending aerial spraying altogether (DENR 2009; Balita, November 13, 2009⁷).</p> <p>The fact that it followed so soon after a meeting between the DENR, MAAS, and NTFAAS (EO-03) invites the hypothesis that the temporary ban was the direct result of the meeting.</p>
19 August 2009	EO-08	<p>MAAS and NTFAAS meet with DOH Secretary Duque. Affected communities narrate their experiences and urge the department to adopt the recommendations of the Kamukhaan study to protect public health. A week later (24.08), the DOH Executive Committee adopts the recommendations of the Kamukhaan study including the aerial spray ban (IDIS 2014).</p> <p>Comment: It was one of MAAS' main lobby strategies to have affected residents themselves narrate their experiences with aerial spraying to the politicians they were trying to convince of their cause.</p>
8 September 2009	EO-09	MAAS-NTFAAS meet with DA Secretary Arthur Yap to discuss the effects of aerial spraying (on health, environment, and livelihoods of local communities) and to lobby for a ban. They report Secretary Yap will follow the recommendation of the DOH on the issue of aerial spraying (IDIS 2014).

⁶ Accessed April 19, 2017. <http://www.insidemindanao.com/article19.html>.

⁷ Accessed April 24, 2017. <http://balita.ph/2009/11/13/denr-orders-safety-measures-on-aerially-sprayed-fungicide/>.

		<p>Comment: EO-06 and EO-07 show that despite the publication of the FPA's rules on Good Agricultural Practices, CSOs continued to lobby for an aerial spray ban at the executive level. They targeted the DENR, DOH, and DA. The DENR and DOH seemed to share the organisations' perspective on the risks of aerial spraying.</p>
11 September 2009	EO-10	<p>An IACEH meeting takes place to discuss aerial spray ban. The IACEH subjects the Kamukhaan study to peer review with the WHO (IDIS 2014).</p> <p>The peer review takes place via teleconference on October 19 (with WHO and government representatives) (IDIS 2014).</p> <p>Comment: We have not been able to retrieve the official report or assessment. However, it was mentioned and passages were cited in multiple media pieces, mostly quoting PBGEA members who state that the WHO had criticised the 'sound science' of the study.</p>
29 October 2009	EO-11	<p>The NTFAAS have a meeting with DOH officials including Secretary Duque, Assistant Secretary Padilla, Dir . Oliveros, Dr. Lynn Panganiban and Engr. Ana Rivera. According to Secretary Duque, the DOH has a draft resolution supporting an aerial spray ban that is to come out the following week (EO-12) (IDIS 2014).</p> <p>Comment: During the Arroyo administration, the DOH proved itself an ally to the CSO's anti-aerial spraying campaign.</p>
3 November 2009	EO-12	<p>The DOH adopts a resolution declaring aerial spraying a public health hazard that must be stopped and urges the DA to stop the practice until proof of its safety is clearly established by the industry (The Philippine Star, November 19, 2009⁸; IDIS 2014).</p> <p>Comment: This was a welcome development for the anti-aerial spraying lobby. The DOH addressed the DA because the FPA was part of that department⁹.</p>
9 November 2009	EO-13	<p>MAAS farmers, two bishops, and support groups hold a dialogue with Arroyo's Executive Secretary Eduardo Ermita. During the meeting, the DA and the DENR both agree that aerial spraying is a public health issue and they would follow the recommendations of the DOH. They likewise agree on a recommendation to President Gloria Macapagal-Arroyo to</p>

⁸ Accessed October 12, 2016. <http://www.philstar.com/nation/524271/doh-bans-aerial-spray-farmlands>.

⁹ Since its establishment, the FPA was part of the DA. In 2014 it was moved to the Office of the Presidential Assistant on Food Security and Agricultural Modernisation (OPAFSAM) by an executive order (Aquino 2014).

		<p>issue an executive instrument banning aerial spraying in the country. Two days later (11.11) Secretary Duque signs a memorandum to President Arroyo recommending an executive order banning aerial spraying (IDIS 2014).</p> <p>Comment: This is one way for passing regulation in the Philippines: an executive department makes a recommendation to the President to sign an executive order regulating an issue. It is still up to the President whether or not to follow the recommendation, and in this case there was no report of an executive order being issued or any other follow up by President Arroyo on the matter. Considering the developments, especially the publication of the GAP by the FPA a few months earlier, this was considered a very important event for the anti-aerial spraying campaign of MAAS and IDIS.</p>
4 December 2009	EO-14	MAAS farmers prepare to protest at the DA. They are approached by FPA Director Gicana who says he was ordered (by DA Secretary Yap) to prepare an administrative order banning aerial spraying to be signed the following week (IDIS 2014).
8 December 2009	EO-15	DA Undersecretary Bernie Fondevilla promises MAAS farmer Lizel Compas that the DA's administrative order would be signed and released by December 10 at the latest. The same promise is made over the phone to Lia Esquillo of IDIS-NTFAAS (IDIS 2014).
11 December 2009	EO-16	<p>DA Secretary Yap meets with MAAS farmers' representatives and support groups. No administrative order is released because a meeting at Malacanang (Presidential offices) is scheduled for December 17. This meeting is cancelled later (IDIS 2014).</p> <p>Comment: The developments of EO-14 through 16 had ambiguous meanings. On the one hand they seemed promising for the anti-aerial spraying campaign. On the other hand, they can be interpreted as a ruse/ strategy to prevent open protest at the DA and give the anti-aerial spraying campaign a false sense of hope/ security.</p>
22 January 2010	EO-17	The Commission on Human Rights releases a human rights advisory calling for the shelving of the aerial spraying practice, citing the precautionary principle and urging the President to issue an executive order stopping the practice (IDIS 2014).
March 2010	EO-18	<p>At the height of election campaigns, candidate Benigno Aquino pushes for a ban of aerial spraying especially in situations without clear safeguards and testing (IDIS 2014).</p> <p>Comment: The elections are held in May of that year. Aquino is elected President and sworn into office at the end of June.</p>

July 2010	EO-19	<p>MAAS sends a letter to President Aquino urging him to issue an executive order that would ban aerial spraying in the country (IDIS 2014).</p> <p>Comment: After President Arroyo had not followed the recommendation to issue an executive order, MAAS and IDIS naturally and eagerly reminded President Aquino III of his campaign promise (EO-18) to ban aerial spraying. However, despite repeated letters urging him to do so, he would also not issue the executive order (EO-20; EO-22; EO-24; EO-25; EO-31; EO-33; EO-34; EO-35)</p>
1 July 2010	AO-05	<p>House Bill No. 0481 “An Act Providing for the Ban of Aerial Spraying of Pesticides and Other Hazardous Substances and for other Purposes”</p> <p>Introduced by Representatives Kaka Bag-ao and Walden Bello (AKBAYAN)</p> <p>Pending with the Committee on Ecology since July 27, 2010</p> <p>(Bag-ao and Bello 2010)</p>
August 2010	EO-20	<p>IDIS and NTFAAS send multiple letters to agencies and persons of the executive departments:</p> <p>NTFAAS sends a letter to DA Secretary Alcala advocating for an administrative order that would ban aerial spraying in all agricultural areas in the country, following the DOH’s recommendation.</p> <p>IDIS and NTFAAS send letters to President Aquino advocating for an executive order to ban aerial spraying (IDIS 2014).</p>
16 August 2010	AO-06	<p>House Bill No. 2515 “An Act Regulating Aerial Spray in Farmlands and Fruit Plantations and Providing Penalties for Violation Thereof”</p> <p>Introduced by Representative Jonathan Cabilao Yambao (district Zamboanga Sibugay)</p> <p>Pending with the Committee on Ecology since August 23, 2010</p> <p>(Cabilao Yambao 2010)</p>
25 August 2010	AO-07	<p>House Bill No. 2803 “An Act Banning Aerial Spraying in the Country”</p> <p>Introduced by Representatives Rufus B Rodriguez (district Cagayan de Oro) and Maximo B. Rodriguez Jr. (Abante Mindanao)</p> <p>Pending with the Committee on Ecology since September 1, 2010</p> <p>(Rodriguez and Rodriguez Jr. 2010)</p>

September 2010	EO-21	Representatives from NTFAAS visits Under Secretary Serrano's Office to follow up on the DA's response to their letter requesting the issuance of an administrative order. According to Serrano, the DA is still waiting for the copy of the DOH study report that would be the basis for forming the Technical Working Group that will look into the issue of aerial spraying (IDIS 2014).
November 2010	EO-22	NTFAAS requests a meeting with President Aquino to discuss the issue of aerial spraying (IDIS 2014).
	EO-23	The Office of the President, through Assistant Executive Secretary Ronaldo Geron, endorses MAAS', IDIS', and NTFAAS' petition to the offices of DENR, DA, Commission on Human Rights (CHR) and DOH, requesting President Aquino to issue an executive order that would prohibit the use of aerial spray in all agricultural areas in the country. The CHR responds in December 2010 and reaffirms a previous statement of former CHR Chair Leila Delima that it supports the call to ban aerial spraying practices. The DOH also respond to the endorsement in December 2010, reaffirming its previous position of supporting a ban (IDIS 2014).
	EO-24	Movement for the Advancement of Sustainable Agriculture (MASA), Justice and Peace-SAC, Diocese of Marbel and PKSK (Pambansang Kilusan ng mga Samahan sa Kanayunan, National Federation of Organisations in the Countryside) also send a letter to President Aquino lobbying for the issuance of executive order (IDIS 2014). Comment: The involvement of other civil society- and church-based organisations explicated the broader societal support for an aerial spray ban.
January 2011	EO-25	The Office of the Deputy Executive Secretary for Legal Affairs furnishes IDIS a copy of the CHR and DENR responses to the endorsement while DOH furnishes IDIS a copy of its response submitted to the Office of the Deputy Executive Secretary. Presidential Management Staff (PMS) informs IDIS that President Aquino will not be available for a meeting with NTFAAS. IDIS sends a follow-up letter requesting a meeting with President Aquino. Meanwhile, PMS-SPO staff informs IDIS that they are still in the process of consolidating all government actions on the issue for appropriate action (IDIS 2014).
February 2011	EO-26	Presidential Management Staff – Social Policy Office (PMS-SPO) informs IDIS that they will be meeting five government agencies (DOH, DA-FPA, DENR, DTI and PCSD) on February 15 to discuss the issue and consolidate the agencies'

		<p>recommendations. IDIS sends a letter to DA Secretary Alcala urging him to recommend to President Aquino the issuance of an executive order banning aerial spray (IDIS 2014).</p> <p>Comment: IDIS approach to Secretary Aclala probably timed to sway their position at this meeting.</p>
March 2011		<p>DENR-EMB provides IDIS a copy of the results of the inter-agency meeting.</p> <p>PCSD is tasked to consolidate all government positions and actions related to aerial spray (IDIS 2014).</p> <p>Comment: While a change in duty is nowhere explicitly stated or explained, it seems that the PCSD took over the consolidation of governmental agencies positions from the PMS-SRO. It communicated this change in duty to MAAS in May that year (IDIS 2014).</p>
	CE-o8	<p>San Gregorio (2011) publishes a “Financial Assessment of Shifting from Aerial to Ground Spray in Davao Region.”</p> <p>Comment: The study is commissioned and funded by IDIS.</p>
April 2011	EO-27	PMS-SPO sets a meeting with NTFAAS to discuss the ban aerial spraying campaign (IDIS 2014).
	EO-28	PCSD conducts the second inter-agency meeting on aerial spraying (IDIS 2014).
4 July 2011	EO-29	<p>PCSD conducts an inter -agency workshop to assess the gaps and policy recommendations on the existing guidelines on aerial spray. The workshop recommendations include;</p> <ol style="list-style-type: none"> 1. Update and strengthen guidelines on aerial spraying as part of the agricultural practices in the banana plantations in the country; 2. Formulate the Implementing Rules and Regulations of the guidelines on Aerial spraying; 3. Strengthen the monitoring system under the current Environmental Impact Assessment (EIA) system; and 4. Design and adopt a monitoring system for farmers and farmer groups which are not being monitored. <p>(IDIS 2014).</p> <p>Comment: MAAS was not invited, thus no civil society representatives were present during the workshop (IDIS 2014). The first point referred to the FPA’s rules on Goof Agricultural Practices, and indicates that the different agencies identified</p>

		certain shortcomings and limitations thereof. The second point was crucial, as it indicates a reason for the ineffectiveness of the FPA-GAP: all forms of legislation in the Philippines are accompanied by Implementing Rules and Regulations (IRR) that specify by who, when, and where the stipulations of legal provisions will be carried out. The absence of IRR for the FPA GAP thus meant that there was no specification for their implementation. The third point referred to a form of monitoring that plantations had to organise to comply with the Environmental Compliance Certificate (ECC), which they must acquire for agricultural operations and handling toxic substances. The monitoring system consisted of teams of representatives of the plantation and surrounding communities who, on a regular basis, observed and reported whether the ECC holder complied with its stipulations. The fourth point indicated that the executive departments were aware of the fact that in particular areas and communities, aerial spraying practices were not monitored.
6 September 2011	AO-08	House Bill No. 5249 “An Act Prohibiting Aerial Spraying as a Method of Applying Chemicals and Similar Substances on Agricultural Crops” Introduced by Luzviminda C. Ilagan and Emma A. De Jesus (GABRIELA Women’s Party) Pending with the Committee on Ecology since September 9, 2011 (Ilagan and De Jesus 2011)
24 November 2011	AO-09	House Bill No. 5550 “An Act Regulating Aerial Spraying of Pesticides and Fungicides on Agricultural Crops and Providing Penalties for Violation Thereof” Introduced by Raymond Decomcrito C. Mendoza (TUCP) Pending with the Committee on Ecology since November 29, 2011 (Mendoza 2011)
December 2011/ January 2012	EO-30	MAAS sends a request to the PCSD to be included in future discussions on aerial spraying ban. PCSD responds on January 30, stating that so far agencies do not have uniform position on the issue and assuring to invite MAAS to future meetings or discussions regarding the issue (IDIS 2014).
April 2012	CE-09	The Philippine Misereor Partnership (PMPI) General Assembly, attended by more than three hundred participants from all over the country and representatives from Misereor, issue a statement calling for the ban of aerial spraying in the Philippines.

	RL-07 EO-31	<p>The PMPI calls on the Supreme Court to resolve the lawsuit over Davao City Ordinance 0309-07 in favour of the City Government of Davao and on President Aquino to issue an executive order to stop aerial spraying practices in all agricultural areas in the country.</p> <p>Comment: “The Philippine-Misereor Partnership Inc. (PMPI) is a network of people’s organizations, non-governmental organizations, church/faith-based groups and Misereor, the overseas development agency of the Catholic Church in Germany based in Aachen, Germany”. It works with a “model of cooperation, coordination and partnership between these Philippine social development organizations and Misereor. (PMPI at http://www.pmpi.org.ph/about). This meeting showed support from a broad range of civil society organisations active in the Philippines and their constituencies. It also showed there was international support (via Misereor) for the anti-aerial spraying campaign.</p>
31 May 2012	EO-32	<p>The Presidential Management Staff Office (PMS) is tasked by President Aquino to consolidate all CSO’s positions and recommendations on the issue. They approach NTFAAS requesting copies of all statements of support from CSOs supporting the Ban Aerial Spray Campaign. NTFAAS, through IDIS, emailed all statements of support to the PMS the next day (IDIS 2014).</p> <p>Comment: It is interesting to note that the President himself made this request.</p>
October 2012	EO-33	<p>NTFAAS and MAAS send follow-up letters to President Aquino and all government agencies reiterating the call to issue an executive order. PMS responds to the letters of NTFAAS and MAAS in December (IDIS 2014).</p> <p>Comment: The nature of the response is unknown.</p>
May 2013	CE-10	<p>Oxfam New Zealand commissions and publishes a study documenting the “Labour and Environmental Situation in Philippine Banana Plantations Exporting to New Zealand” (Center for Trade Union and Human Rights and Nonoy Librado Development Foundation 2013)</p>
June-August 2013	EO-34	<p>MAAS sends letters to President Aquino, various government agencies such as DOH, DENR, DA, FPA, the Commission on Human Rights, Presidential Management Staff, Office of Political Affairs, Presidential Human Rights Secretariat, and PCSD reiterating the call to ban aerial spraying in the country and to request a meeting to discuss this issue (IDIS 2014).</p>

		Comment: The existing timeline prepared by IDIS (2014) seldom specified what the response to or outcome of these kind of letters, sent by civil society organisations to various executive departments, was. It nonetheless illustrates the awareness-raising lobby strategies of the anti-aerial spraying campaign.
	AO-10	MAAS also approaches the Supreme Court Justices by letter, calling for the resolution of the case that questions the constitutionality of Davao City Ordinance Banning Aerial Spray (IDIS 2014).
25 July 2013	AO-11	House Bill No. 1864 "An Act Regulating Aerial Spraying in Farmlands and Fruit Plantations and Providing Penalties for Violations Thereof". Introduced by Representative Belma Arellano Cabilao (district Zamboanga Sibugay) Status: Pending with the Committee on Agriculture and Food since July 31, 2013 (Cabilao 2013).
26-30 August 2013	AO-12	MAAS representatives arrive in Manila to conduct lobby visits. MAAS meets with Cong. Luz Ilagan of Gabriela, Cong. Zarate and Cong. Colmenares of Bayan Muna, Cong. Kaka Bag-ao of Dinagat Islands, Cong. Florencio Flores of Bukidnon, Cong. Barry Gutierrez and Cong. Walden Bello of Akbayan. In the Senate, offices of Senators Pimentel, Bam Aquino, Cayetano, and Binay are also visited and provided with briefing kits (IDIS 2014).
	EO-35	At the executive level, MAAS visits the offices of DENR, CHR, and PMS at the Malacanang (IDIS 2014).
27 August 2013	AO-13	House Bill No. 2552 "An Act Regulating Aerial Spraying of Pesticides and Fungicides on Agricultural Crops and Providing Penalties for Violation Thereof" Introduced by Raymond Democrito C. Mendoza (TUCP) Pending with the Committee on Ecology since September 2, 2013 (Mendoza 2013)
28 November 2013	LP-05	The "falsification and libel" lawsuit against Dr. Quijano and the DOH team, filed in 2010, is dismissed by the Department of Justice (DOJ) (KMP Philippines 2015).
19 November 2013	AO-14	House Bill No. 3381 "An Act Providing for the Ban of Aerial Spraying of Pesticides and Other Hazardous Substances and for other Purposes" Introduced by Representatives Ibarra "Barry" M. Gutierrez and Walden F. Bello (AKBAYAN) Pending with the Committee on Ecology since November 26, 2013 (Gutierrez and Bello 2013)

December 2013	EO-36	<p>MAAS receives a letter response from the Bureau of Plant Industry (BPI PAL) reiterating the safety of chemical mixtures used for aerial spraying. It also reiterates that there are no compelling reasons to warrant the ban. On the other hand, DOH also reiterates its early position which calls for an aerial spray ban.</p> <p>Comment: This is a very good example of heterogeneity within the state: different executive departments and bureaus had different perspective on the same topic. The BPI is part of the DA.</p>
6 February 2014	AO-15	<p>House Bill No. 3857 “An Act Prohibiting Aerial Spraying as a Method of Applying Chemicals and Similar Substances on Agricultural Crops”</p> <p>Introduced by Representatives Luzviminda C. Ilagan and Emmi A. de Jesus (GABRIELA Women’s Party), Neri J. Colmenares and Carlos Isagani T Zarate (BAYAN Muna), Antonio L. Tinio (ACT Teacher’s), Fernando Hicap (Anakpawis), and James Terry L. Ridon (Kabataan)</p> <p>Pending with the Committee on Ecology since February 12, 2014 (Ilagan et al. 2014)</p>
10-15 February 2014	EO-37 AO-16 AO-17	<p>MAAS representatives conduct another round of lobby activities in Manila. Updates from the lobby activities:</p> <ul style="list-style-type: none"> *The PCSD headed by the National Economic and Development Authority (NEDA) is set to sign a Memorandum of Agreement (MOA) with DENR in March to conduct socio-economic benefits and drift studies *The House of Representatives –Committee on Ecology calls for a Public Hearing in Davao City on the proposed ban-aerial spraying bills, tentatively set in May or June of 2014 *The Office of Senator Allan Peter Cayetano commits to file a counterpart bill in Senate (IDIS 2014). <p>Comment: Apart from the first point, we could not retrieve further information on the other two events; whether they took place and if there was any development or follow-up afterwards. According to IDIS (personal communication), the guidelines that the PCSD was supposed to develop based on consolidated positions of the DOH, DENR, and DA were never finalised due to a lack of consensus among the executive departments.</p>
30 July 2014	AO-18	<p>MAAS approaches the Committee on Ecology to follow up on the status of the two bills pending in the committee (IDIS 2014).</p>

14 August 2014	EO-38	MAAS does a follow-up at the CHR checking on the status of consolidated positions and reports on the aerial spray issue and to issue another advisory reiterating the call to ban aerial spraying practices in agricultural areas. MAAS receives no reply (IDIS 2014).
August 2014	AO-19	MAAS approaches the Committee on Ecology Secretary Atty. Dilbert N. Quetulio to inquire about a response to their follow-up letter. Quetulio suggests that the authors of the bills in question also ask the committee for a follow up. This is followed by a series of communication with (ban aerial spraying) bill authors wherein IDIS asks them to also follow up at the Committee on Ecology in September (IDIS 2014).
10 September 2014	EO-39	<p>MAAS and IDIS attend the NEDA-PCSD Meeting in Manila</p> <p>*The PCSD will push the socio-economic profiling study from September 2014 to February 2015 and has commissioned University of the Philippines (UP) Mindanao to do it. Dr. Larry Digal is the head researcher.</p> <p>*Director Mercedita Sombilla of Agriculture, Natural Resources and Environment Staff (ANRES-NEDA) assures MAAS and IDIS that what she has learned from the two organizations during the meeting about the aerial spraying issue will still be considered in the study and she will tell Dr. Digal to contact MAAS and IDIS before finalising the project report (IDIS 2014).</p> <p>Comment: MAAS and IDIS had originally pushed for a drift study, which the PCSD and NEDA also had originally agreed to, but which was replaced by a socio-economic profiling study due to lack of funding (personal communication IDIS).</p>
September 2014	CE-11	<p>MAAS and IDIS participate in a Fact Finding Mission in South Cotabato. The intention is to collect information on the real situation and the complaints of about 100 individuals affected by the aerial spraying practices of SUMIFRU in the affected barangays of the municipality of T'boli (IDIS 2014).</p> <p>Comment: No report by IDIS (e.g. press release) found following this fact finding mission, which reported on its outcomes or used its materials.</p>
April 2015	EO-40	IDIS send their Position Paper on Aerial Spraying to the Congressional Committee on Ecology. The paper is signed by 95 national and international organisations (IDIS 2015).

		<p>Comment: Of the 95 organisations that signed the position paper, only a handful focused exclusively on aerial spraying. This signals that IDIS successfully formulated the campaign message in a way that made it relevant for a broader public. Sending such a position paper with such diversity of signatories to the congressional Committee on Ecology showed broad societal support and a potentially large constituency for the anti-aerial spray campaign.</p>
09 June 2015	AO-20	<p>A meeting of the Congressional Committee on Ecology takes place to discuss House Bills No. 2552 (regulation), No. 3381 (ban), and No. 3857 (prohibition) (Committee on Ecology 2015).</p> <p>Comment: the transcript of this hearing showed that the Committee members asked for additional documents, mostly research on the effects of aerial spraying and information on how the practice is regulated in other (banana growing) countries. There was no follow-up to this hearing and the discussed House Bills ‘died’ at the end of this Congress’ term in 2016.</p>
October 2015	LP-06	<p>Renewed complaints appear against Dr. Quijano. This time six residents from Sitio Camocaaan file an affidavit before the Professional Regulation Commission (PRC) for unprofessionalism and spreading lies. The case ends in a settlement after Dr Quijano counter-sues the PBGEA for harassment (Business & Human Rights Resource Centre 2014; KMP Philippines 2015; People’s Health Movement 2007; Rengam and Ravindran 2015; The Mindanao Daily Mirror, October 13, 2015¹⁰; Wallar 2004).</p> <p>Comment: PAN Asia and the Pacific (PANAP 2015) appeal to Philippine authorities for Dr. Quijano’s release, reiterating the support of 100 civil society organisation.</p>
2015/ 2016	CE-12	<p>The socio-economic profiling study is conducted by Dr. Larry Digal and his research team (Digal and Balgos 2016).</p> <p>Comment: The study is marked confidential due to the controversies surrounding aerial spraying in the Philippines (personal communication Balgos). Also IDIS did not have access (personal communication IDIS).</p>

¹⁰ Accessed April 25, 2017. <http://mindanaodailymirror.com/davsurresidentsfilecomplaintvsfalseinfoonaerialspray5375/>.

May 2016	EO-41	<p>MAAS and IDIS appeal to President-elect Duterte to issue an executive order implementing an aerial spray ban. The organisations include in their appeal a reference to his campaign promise to achieve nation-wide what he had achieved in Davao (Inquirer Mindanao, May 29, 2016¹¹; Sun Star Davao, August 26, 2016¹²).</p> <p>Comment: As mayor of Davao City, Duterte supported the issuance of and signed Davao City Ordinance 0309 of 2007 banning aerial spraying.</p>
30 June 2016	AO-21	<p>House Bill No. 0339 “An Act Prohibiting Aerial Spraying as a Method of Applying Chemicals and Similar Substances of Agricultural Crops”</p> <p>Introduced by Representative Tomasito S. Villarin (AKBAYAN)</p> <p>Pending with the Committee on Ecology since July 26, 2016 (Villarin 2016)</p>
30 June 2016	AO-22	<p>House Bill No. 0768 “An Act Providing for the Ban of Aerial Spraying of Pesticides and Other Hazardous Substances and for Other Purposes”</p> <p>Introduced by Representative Emmeline Y Aglipay-Villar (DIWA)</p> <p>Pending with the Committee on Ecology since July 27, 2016 (Aglipay-Villar 2016)</p>
3 August 2016	CE-13	<p>2nd Health Policy Forum on Aerial Spraying held at University of the Philippines Los Baños (UPLB). Representatives from industry, government, and academe are present. Representatives from the academe are from UPLB and UP Manila. Government representatives include the Occupational Safety and Health Center of the Department of Labor and Employment, Fertilizer and Pesticide Authority, Bureau of Plant Industry, and Bureau of Agriculture and Fishery Standards. The industry is represented by Unifrutti Philippines, Tagum Agricultural Development Co., Inc. (TADECO), CropLife Philippines Inc., Philippine Fresh Fruits Davao Corporation, Arysta LifeScience, Pilipino Banana Growers and Exporters Association (PBGEA), Lapanday Foods Corporation (LADECO), Del Monte Foods, NEH Philippines, Inc., Sumitomo Chemical, and Du Pont Far East, Inc. (Arana 2016).</p>

¹¹ Accessed September 07, 2016. <http://newsinfo.inquirer.net/787983/dutertetoldtobackcropdusterbanindavao>.

¹² Accessed September 07, 2016. <http://www.sunstar.com.ph/davao/localnews/2016/08/25/duterteurgedissuecobanningaerialspray493583>.

		<p>Comment: Note the absence of the governmental executive departments DOH, DENR, DA and the Commission on Human Rights, as well as the absence of civil society representatives. The latter were invited only shortly before the Forum took place (personal communication). Attendees prepared briefing papers on: the industry's efforts to control aerial spraying, practices controlling spray drift, and health effects of Aerial Spraying on plantation workers and nearby communities. We have made multiple unsuccessful requests to retrieve the briefing papers from UP Manila.</p>
25 August 2016	RL-o8	<p>The Supreme Court rules that Davao City Ordinance 0309-07 is unconstitutional. Reasons include: The ordinance makes no substantial distinctions when it prohibits aerial spraying, regardless of the substance or the level of concentration of chemicals to be applied. The high court also notes that the ordinance imposed a 30-meter buffer zone in all agricultural landholdings regardless of size. It states that the city “must not act arbitrarily, whimsically or despotically regardless of the ordinance’s salutary purpose.” (Bersamin 2016) The high court further specifies that the ordinance also violates due process rights of banana growers. It says they are deprived of efficient means to combat plant diseases, noting that three months are not enough to shift from aerial to truck-mounted boom spraying. Lastly, the Supreme Court states the Davao City government has no authority to regulate and control the use of pesticides and agricultural chemicals, because this is lodged with the Fertilizer and Pesticides Authority (FPA). The high court labels the ordinance an ultra vires act (issued beyond legal authority), because it prohibits an activity already regulated through FPA regulations under Memorandum Circular No. 2, series of 2009 (Bersamin 2016; Philippine Daily Inquirer, August 22, 2016; Manila Bulletin, August 12, 2016¹³).</p> <p>Comment: MAAS announce they would file for a motion of reconsideration (Davao Today, August 26, 2016¹⁴). We have been unable to obtain information whether the Supreme Court has responded to/ ruled on the motion.</p>
16 November 2016	AO-23	<p>House Bill No. 4451 “An Act Regulating the Aerial Spraying of Pesticides and Fungicides on Agricultural Crops and Providing Penalties for Violation Thereof”</p> <p>Introduced by Raymond Democrito C. Mendoza (TUCP)</p> <p>Pending with the Committee on Ecology since November 23, 2016 (Mendoza 2016)</p>

¹³ Accessed September 08, 2016. <http://www.mb.com.ph/supremecourtaffirmscarulingonconstitutionalityofbanonaerialsprayingofpesticidesonplantations/>.

¹⁴ Accessed September 07, 2016. <http://davaotoday.com/main/blog/davaoenos-urged-to-oppose-sc-decision-on-aerial-spray/>.

22 November 2016	AO-24	<p>House Bill No. 4491 “An Act Prohibiting Aerial Spraying as a Method of Applying Chemicals and Similar Substances on Agricultural Crops”</p> <p>Introduced by Representatives Emmi A. De Jesus and Arlene D. Brosas (GABRIELA Women’s Party), Carlos Isaganti T. Zarate (BAYAN Muna), Antonio L. Tinio and France L. Castro (ACT Teacher’s Partylist), Ariel Casilao (Anakpawis), and Sarah Jane I. Elago (Kabataan)</p> <p>Pending with the Committee on Ecology since November 28, 2016</p> <p>(De Jesus et al. 2016)</p>
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Opportunities for further research

Based on this timeline and our analysis and conclusions in Nikol and Jansen (2018) we identify several opportunities for further research on the Philippine civil society struggles for aerial spray regulations. These include:

- Long-term systematic observations of health and environmental effects of aerial spraying of pesticides in communities close to (export) banana plantations (as opposed to the inventory-like studies conducted thus far).
- Drift studies conducted under non-optimal, real conditions, i.e. during 'real practices' of banana growers, to properly assess the actually occurring drift.
- Conduct large scale surveys in several communities for a comprehensive study of ethnographic expertise on real practices and effects of aerial spraying.
- Investigate how aerial spraying as a policy issue should be, and is, institutionally governed in the Philippines. This includes an institutional analysis of the policy domain, outlining the mandates, tasks, and responsibilities of the different departments, as well as an investigation of the people having filled positions in those departments in the period 2008 – 2016 to outline how personalistic politics has shaped risk governance of aerial spraying in the Philippine institutional context.
- Compare the Philippine case with the situations in other banana growing nations, in terms of: how is aerial spraying regulated? What are prescribed and actual practices? what are policy- and societal discussions concerning aerial spraying about?

References

- Abinales, P.N. and D.J. Amoroso. 2017. *State and Society in the Philippines*. Lanham: Rowman & Littlefield.
- Aglipay-Villar, E.Y. 2016. House Bill No.768 - An Act Providing for the Ban of Aerial Spraying of Pesticides and Other Hazardous Substances and for Other Purposes. Seventeenth Congress. Republic of the Philippines. First Regular Session.
- Aquino, B.S. 2014. Executive Order No. 165 - Transferring the National Food Authority, National Irrigation Administration, Philippine Coconut Authority, and Fertilizer and Pesticide Authority to the Office of the President. Manila: The President of the Philippines.
- Arana, J.J.S. 2016. Academe, Gov't, Industry Discuss Aerial Spraying at Uplb. Accessed 10-10-2016. <http://uplb.edu.ph/component/k2/item/576academegovtindustrydiscussaerialsprayingatuplb?tmpl=component&print=1>.
- Arancibia, F. 2016. Regulatory Science and Social Movements: The Trial Against the Use of Pesticides in Argentina, *Theory in Action*, 9(4): 1-20.
- Bag-ao, K. and W. Bello. 2010. House Bill No. 0481 - An Act Providing for the Ban of Aerial Spraying of Pesticides and Other Hazardous Substances and for Other Purposes. Fifteenth Congress. Republic of the Philippines. First Regular Session.
- Barraza, D., Jansen, K., van Wendel de Joode, B. and Wesseling, C. 2013. Social Movements and Risk Perception: Unions, Churches, Pesticides and Bananas in Costa Rica, *International Journal of Occupational and Environmental Health*, 19(1): 11-21.
- Bersamin, L.P. 2016. Decision G.R. Nos. 189185 & 189305. Manila: Republic of the Philippines Supreme Court.
- Bohme, S. R. 2014 *Toxic Injustice: A Transnational History of Exposure and Struggle*, Oakland: University of California Press.
- Business & Human Rights Resource Centre. 2016. Aerial Spraying Ban Lawsuit (Re Banana Companies in Philippines). *Business & Human Rights Resource Centre*. Accessed September 07, 2016. <https://businesshumanrights.org/en/aerialsprayingbanlawsuitrebananacompaniesinphilippines> . *
- Cabilao, B.A. 2013. House Bill No.1864 - An Act Regulating Aerial Spray in Farmlands and Fruit Plantations and Providing Penalties for Violation Thereof. Sixteenth Congress. Republic of the Philippines. First Regular Session.
- Cabilao Yambao, J. 2010. House Bill No. 2515 - An Act Regulating Aerial Spray in Farmlands and Fruit Plantations and Providing Penalties for Violation Thereof. Fifteenth Congress. Republic of the Philippines. First Regular Session.
- CBG - Coalition against-Bayer Dangers. 2003. International Fact Finding Mission in Kamukhaan. Accessed April 24, 2017. <http://www.cbgnetwork.org/489.html> .
- Center for Trade Union and Human Rights. Nonoy Librado Development Foundation. 2013. The Labour and Environmental Situation in Philippine Banana Plantations Exporting to New Zealand. Oxfam New Zealand. Accessed September 12, 2016. <https://www.oxfam.org.nz/reports/labour-and-environmental-situation-philippine-banana-plantations-exporting-new-zealand> .
- Committee on Ecology. 2015. Transcript of the Congressional Hearing of the Committee on Ecology Scheduled on 9 June 2015. Sixteenth Congress. Republic of the Philippines. Second Regular Session.
- De Jesus, E., A.D. Brosas, C.I.T. Zarate, A.L. Tinio, F.L. Castro, A. Casilao and S.J.E. Elago. 2016. House Bill No. 4491 - An Act Prohibiting Aerial Spraying as a Method of Applying Chemicals and Similar Substances on Agricultural Crops. Seventeenth Congress. Republic of the Philippines. First Regular Session.
- Defensor Santiago, M. 2008. Senate Resolution No. 798 - Resolution Directing the Proper Senate Committee to Conduct an Inquiry in Aid of Legislation, on the Reported Need to Ban Aerial Spraying Due to Its Detrimental Effect on the Health of People. Republic of the Philippines. Fourteenth Congress. Second Regular Session.
- DENR - Department of Environment and Natural Resources. 2009. Memorandum Circular No. 2009-14. Subject: Strict Implementation of the 50 Meters Buffer Zone.
- Digal, L. and C. Balgos. 2016. Economic Impact of Aerial Spray in the Philippine Cavendish Banana Industry. Presentation held at the International Symposium on Tropical Fruits 31 August 2016, University of the Philippines Mindanao, Davao City. Accessed May 1, 2017. <http://itfnet.org/istf2016/BestPaperSlide/1%20-%20Ms.%20Carol%20Balgos.pdf> .

- Dionisio, A.R., L.C.R. Panganiban, C.C. Duiquino, N.P. Cortes-Maramba, A.T. Francisco-Rivera, A. Yumang, J.C. Pascual, J.P.T. Reyes, L.H. Suplido-Westergaard, E.S. Castillo, et al. 2009. Health and Environmental Assessment of Sitio Camocaan, Haganoy, Davao Del Sur. The Department of Health, Republic of the Philippines. Accessed September 07, 2016. <http://idisphil.org/wp-content/uploads/2015/02/DOH-Camocaan-Study.pdf>.
- Estrada, M.D. 2006. Health and Environmental Conditions of People Living in the Three Communities of Davao City Where Aerial Spraying of Pesticides Is a Common Practice. Kalusugan Alang sa Bayan Inc (KABAAY), Interface Development Interventions (IDIS). Accessed September 7, 2016. <http://idisphil.org/wp-content/uploads/2015/02/Kaabay-Health-study.pdf>.
- Fian International. 2009. Urgent Action: Aerial Spraying in Banana Plantations Threatens Right to Food of Residents from 7 Villages, Davao City, Mindanao. Accessed September 14, 2016. https://www.fian.org/fileadmin/media/publications_2015/0908UPHL_Davao_e.pdf.
- FPA - Fertilizer and Pesticide Authority. 2009. Memorandum Circular No.02 Series of 2009. Good Agricultural Practices for Aerial Spraying of Fungicide in Banana Plantations. Republic of the Philippines. Department of Agriculture.
- Gutierrez, I.M. and W.F. Bello. 2013. House Bill No.3381 - An Act Providing for the Ban of Aerial Spraying of Pesticides and Other Hazardous Substances and for Other Purposes. Sixteenth Congress. Republic of the Philippines. First Regular Session.
- Harrison, J. L. 2011. *Pesticide Drift and the Pursuit of Environmental Justice*, Cambridge MA: MIT Press.
- IDIS - Interface Development Interventions. 2005. 20 Reasons to Ban Aerial Spraying in Davao City. *Implement the Ban Aerial Spraying Ordinance of Davao City*, Accessed October 27, 2016. <https://peoplevsprofit.wordpress.com/20-reasons-to-ban-aerial-spraying-in-davao-city/>.
- IDIS - Interface Development Interventions. 2015. 95 Groups Want Aerial Spray Banned. *Dirty Bananas*, Accessed September 12, 2016. <http://idisphil.org/dirtybananas/95groupswantaerialspraybanned/>.
- IDIS - Interface Development Interventions, I. 2014. Chronology of Events on Ban Aerial Spraying Campaign. Accessed October 10, 2016. <http://idisphil.org/wp-content/uploads/2015/02/Davao-Ban-Aerial-Spray-Campaign-Chronology.pdf>.
- Ilagan, L.C., E. De Jesus, N.J. Colmenares, C.I.T. Zarate, A.L. Tinio, F. Hicap and J.T. Ridon. 2014. House Bill No.3857 - An Act Prohibiting Aerial Spraying as a Method of Applying Chemicals and Similar Substances on Agricultural Crops. Sixteenth Congress. Republic of the Philippines. First Regular Session.
- Ilagan, L.C. and Emma A. De Jesus. 2011. House Bill No. 5249 - An Act Prohibiting Aerial Spraying as a Method of Applying Chemicals and Similar Substances on Agricultural Crops. Fifteenth Congress. Republic of the Philippines. Second Regular Session.
- Jansen, K. and Dubois, M. 2014. Global Pesticide Governance by Disclosure: Prior Informed Consent and the Rotterdam Convention, in Gupta, A. and Mason, M. (eds) *Transparency in Global Environmental Governance: Critical Perspectives*, pp. 107-131. Cambridge: MIT Press.
- KMP Philippines. 2015. Banana Industry Resurrects 'Dead' Case to Threaten Top Toxicologist. Kilusang Magbubukid ng Pilipinas. Accessed October 11, 2016. <http://kilusangmagbubukidngpilipinas.com/bananaindustryresurrectsdeadcasetothreatentop toxicologist/>. *
- Lapegna, P. 2016. *Soybeans and Power: Genetically Modified Crops, Environmental Politics, and Social Movements in Argentina*, New York: Oxford University Press.
- Mendoza, R.D.C. 2011. House Bill No. 5550 - An Act Regulating Aerial Spraying of Pesticides and Fungicides on Agricultural Crops and Providing Penalties for Violation Thereof. Fifteenth Congress. Republic of the Philippines. Second Regular Session.
- Mendoza, R.D.C. 2013. House Bill No.2552 - An Act Regulating the Aerial Spraying of Pesticides and Fungicides on Agricultural Crops and Providing Penalties for Violations Thereof. Sixteenth Congress. Republic of the Philippines. First Regular Session.
- Mendoza, R.D.C. 2016. House Bill No. 4451 - An Act Regulating the Aerial Spraying of Pesticides and Fungicides on Agricultural Crops and Providing Penalties for Violation Thereof. Seventeenth Congress. Republic of the Philippines. First Regular Session.
- Nikol, L. J. and Jansen, K. 2018. The Politics of Count-Expertise on Aerial Spraying: Social Movements Denouncing Pesticide Risk Governance in the Philippines. *Journal of Contemporary Asia*. DOI: <https://doi.org/10.1080/00472336.2018.1551962>.

- Ocampo, J.N.P. 2009a. Distributional Effects of Ban on Aerial Spraying of Fungicides to Banana Companies. Chapter, Unpublished thesis manuscript: Graduate School of Environmental Studies. Kyoto University.
- Ocampo, J.N.P. 2009b. Spatial Analysis of Pesticide Drift Due to Aerial and Ground Spraying of Fungicide on Banana Plantations Using Geographic Information System. Chapter, Unpublished thesis manuscript: Graduate School of Environmental Studies. Kyoto University.
- Office of the City Council - Joint Committee on Environment and Natural Resources, Committee on Agriculture and Food and Committee on Health. 2007. A Resolution to Enact an Ordinance Banning Aerial Spraying and Providing Mechanisms for Its Gradual Phase-out in Agribusiness Practices within the Territorial Jurisdiction of Davao City and Prescribing Guidelines Thereof. Davao City: Office of the City Council.
- PANAP - Pesticide Action Network Asia & the Pacific. 2015. Groups Ask Authorities to Dismiss Frivolous Charges Lodged against Prominent Philippines and International Health Expert and Toxicologist. Accessed April 28, 2017. <http://www.ipen.org/news/groups-ask-authorities-dismiss-frivolous-charges-lodged-against-prominent-philippines-and> .
- Panganiban, L., N. Cortes-Maramba, C. Dioquino, M.L. Suplido, H. Ho, A. Francisco-Rivera and A. Manglicmot-Yabes. 2004. Correlation between Blood Ethylenethiourea and Thyroid Gland Disorders among Banana Plantation Workers in the Philippines. *Environmental Health Perspectives* 112, (1): 42-45.
- People's Health Movement. 2007. A Victory of the People's Struggle Vs. Toxic Chemicals: Banana Plantation Suit against Activist Doctor Dismissed! , Accessed October 7, 2016. <http://www.phmovement.org/en/node/476> .
- Perkins, T. E. 2012. Women's Pathways into Activism: Rethinking the Women's Environmental Justice Narrative in California's San Joaquin Valley, *Organization & Environment*, 25(1): 76-94.
- Quijano, I.I. 2002. Kamukhaan Report on a Poisoned Village. Pesticide Action Network (PAN) Asia and the Pacific. Accessed October 07, 2016. http://files.panap.net/resources/kamukhaan_report.pdf .
- Quijano, R.F. 1999. Kamukhaan: A Poisoned Village. Accessed October 11, 2016. <http://www.cbgnetwork.org/447.html> .
- Quijano, I.I. and R.F. Quijano. 2006. Kamukhaan Revisited: Heaven's Antidote to Pesticide Poisoning. Accessed October 07, 2016. <http://p7953.typo3server.info/uploads/media/KamukhaanRevisited4.pdf>
- Rengam, S.V. and D. Ravindran. 2015. Harassment of Anti-Pesticides Expert Derails Independent Monitoring of Agrochemicals' Impact. Pesticide Action Network Asia and the Pacific. Accessed October 07, 2016. <http://www.panap.net/campaigns/landfoodrights/nolandnolife/post/2699> .
- Rodriguez, R.B. and M.B. Rodriguez Jr. 2010. House Bill No. 2803 - An Act Banning Aerial Spraying in the Country. Fifteenth Congress. Republic of the Philippines. First Regular Session.
- San Gregorio, A.I. 2011. Financial Assessment of Shifting from Aerial to Ground Spray in Banana Plantation in Davao Region. Interface Development Interventions (IDIS). Accessed June 9, 2016. <http://idisphil.org/wp-content/uploads/2015/02/Financial-Assessment-of-Shifting-from-Aerial-to-Ground-Spray-in-Banana-Plantations-in-the-Region.pdf> .
- Villarin, T.S. 2016. House Bill No.339 - An Act Prohibiting Aerial Spraying as a Method of Applying Chemicals and Similar Substances on Agricultural Crops. Seventeenth Congress. Republic of the Philippines. First Regular Session. .
- Wallar, M. 2004. Philippines: Arrest Gags Pesticide Research in the Philippines. Greengrants. Accessed November 29, 2016. <https://www.greengrants.org/2004/05/23/philippines-arrest-gags-pesticide-research-in-the-philippines/> .
- Zubiri, J.M.F. 2009. Senate Bill No. 3134 - An Act Providing for the Ban of Aerial Spraying of Hazardous Substances and for Other Purposes. Fourteenth Congress. Republic of the Philippines. Second Regular Session.
- Zwetsloot, H. M., Nikol, L. J., and K. Jansen. 2018. The General Ban on Aerial Spraying of Pesticides of the European Union: The Policy-Making Process between 1993-2009. Wageningen, Rural Sociology. DOI: <https://doi.org/10.18174/442443>

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