The Feasibility of Systematic Research on the Deterrent Effects of the Death Penalty in Indonesia

Jeffrey Fagan

ACKNOWLEDGMENTS

Copies of this report can be obtained from:
The Death Penalty Project
87-91 Newman Street
London
W1T 3EY

and

LBH Masyarakat
Tebet Timur Dalam VI E No. 3
Jakarta Selatan 12820
Indonesia

CONTENTS

I. INTRODUCTION

A. Purpose of the Study

This report assesses the feasibility of conducting systematic empirical research on the deterrent effects of the death penalty on drug and other criminal offences in Indonesia. Research on deterrence requires complex empirical analyses within contemporary theoretical frameworks using multiple indicators and alternate or competing causal models. This report summarises potential strategies, and assesses the feasibility of adapting them to the unique and complex context of Indonesia. The report suggests a preferred strategy that will produce reliable and detailed estimates of deterrent effects. Ultimately, we conclude that such a strategy and study is feasible, and that both reliable data and analytic tools can inform and sustain such a study.

Much of our scientific knowledge about the deterrent effects of the death penalty is based on research in the U.S., where only intentional murder is eligible for capital punishment.[1] While research in Indonesia will necessarily build on the science that has developed on deterrence in the U.S., the limited scope of death eligibility there narrows the design demands for assessing its deterrent effects.[2] As a result, the deterrence research in the U.S. can inform estimates of deterrence of murder in other countries. Murder is measured consistently and rigorously in many countries, and presents fewer empirical challenges to assess its sensitivity to punishment risks. So too are the punishments that are applied to deter murder: with few exceptions, executions can be counted or closely estimated in many countries. This narrow scope has led to a robust body of empirical evidence to assess the deterrent effects of execution on murder under a variety of study conditions.[3]

In Indonesia, the research design task is more complex. As in other countries in the Southeast Asia region, offences in addition to intentional murder are eligible for punishment via death, including terrorism, drug trafficking, and weapons or firearms offences.[4] These additional areas of

---

[1] *Kennedy v. Louisiana*, 554 U.S. 407, 438 (2008) (drawing a jurisprudential distinction between intentional first-degree murder and other forms of murder and non-homicide crimes). See, generally, J. D. Bessler, *Cruel & Unusual: The American Death Penalty and the Founders' Eighth Amendment* (2012).

[2] D. Nagin and J.V. Pepper (eds.) (2012) *Deterrence and the Death Penalty,* The National Academic Press.

[3] R. Hood and C. Hoyle (2015) *The Death Penalty: A worldwide perspective*, Oxford University Press, ch. 9.

[4] In Indonesia, for example, offences other than drug trafficking that are death-eligible include: terrorism, robbery, certain firearms offences, drug possession, certain economic crimes including corruption during economic crimes, treason, espionage, war crimes, and crimes using chemical weapons. See Appendix A for statutes.

eligibility for the death penalty complicate the design of rigorous research that addresses the spectrum of death-eligible offences and their sensitivity to the risks of capital punishment and other serious punishments. Measurement of drug trafficking or drug use cannot be assessed using unitary measures; there are multiple dimensions of drug use and trafficking that research must assess to estimate the deterrent effects of punishment. Specifically, accurate, systematic and reliable measures to assess the deterrent effects of capital punishment on drug crimes requires a set of research methods that can generate both supply and demand models, locate the persons who are committing drug offences, and assess their real and perceived risks of arrest and punishment.[5] Several health measures also are indicia of drug use and availability that will be sensitive to efforts to deter supplies and will require research attention.[6]

The remainder of this report proceeds as follows. The rest of this first section provides background on deterrence and the death penalty, and locates this information in the specific context of Indonesia. Section II sets forth the framework for a formal study of the death penalty there. It provides a formal expression of the theory and logic of deterrence and the death penalty, drawing from classical deterrence and related criminological theories. The expression of this theory within the specific context of Indonesia follows. Section III presents the research design for a deterrence study. The use of the death penalty for drug trafficking in particular raises unique questions and research challenges for the analysis of its deterrent effects, and will require several research design features that are unique to this setting. Specifically, the deterrence study will include two components: analyses of records and data available from official sources, and original data collection to create measures related to drug use and trafficking. For each of these, the study components will be identified, including methods of data collection and data sources. Section IV identifies the data elements available for each component and assesses the quality of the data that either are available or will be generated through original research. Section IV reviews and summarises the data analytic methods to estimate deterrent effects. Section V concludes the report with an assessment of the overall feasibility of completing such a study.

---

[5] LSE Ideas (2014) Ending the Drug Wars: Report of the LSE Expert Group on the Economics of Drug Policy.

[6] J. Csete, A. Kamarulzaman, M. Kazatchkine, F. Altice, M. Balicki, J. Buxton, J. Cepeda et al. (2016) '*Public health and international drug policy',* 387 The Lancet 1427.

B. Background

1. *Deterrence and Death Penalty*

Deterrence is one of the fundamental justifications for the death penalty across the world. Some nations use the death penalty symbolically and expressively to voice condemnation of criminal acts that are deemed harmful to society.[7] These states use the death penalty to signal their belief in a moral imperative based on the harm of the act or crime. They view the death penalty as retribution for crimes that have caused specific harms, regardless of other motivations or utilitarian considerations.[8] Some use it simply to incapacitate the offender.[9] However, many states that retain the death penalty do so with the belief that executions deter the targeted crimes.[10] These states cling to the theory that executions prevent further crimes by deterring other people from committing those acts that are eligible for death. Leaders in those states and nations, as well as large segments of their populations, endorse this view, though in varying degrees and often in the face of popular ambivalence if not doubt.[11] Deterrence is not just a justification for capital punishment in many of the retentionist countries, execution is critical to state legitimacy in such places.[12] However, rarely do those states or their citizens reflect either on the theories or evidence of deterrence that supports those beliefs. Were they to do so by tapping into a rich body of empirical evidence as well as challenging the core elements of the theory itself, their beliefs in deterrence might well change, and that foundation of support for the death penalty would be removed.

2. *Death Penalty in Indonesia*

The death penalty is a long-standing punishment system that has existed in Indonesia since the Dutch colonial era, when the criminal code

---

[7] S. Bandes (2018) 'All Bathwater, No Baby: Expressive Theories of Punishment and the Death Penalty', 116 Michigan Law Review 905.

[8] D. Garland (2017) '*Penal power in America: Forms, functions and foundations*', 5 Journal of the British Academy 1.

[9] M. S. McLeod (2018) '*The death penalty as incapacitation*', 104 Virginia Law Review 1123.

[10] J. Fagan (2015) '*Deterrence and the Death Penalty in International Perspective*' in United Nations (eds) Moving Away from the Death Penalty: Arguments Trends and Perspectives, pp. 84-99.

[11] J. Donohue (2016) '*Empirical analysis and the fate of capital punishment*', 11 Duke Journal of Constitutional Law & Public Policy 51.

[12] See note 1 above, R. Hood and C. Hoyle (2015). Countries such as Japan argue that popular support for capital punishment, including cultural beliefs in its deterrent value, is reciprocally tied to the legitimacy of the government itself. See, for example, M. Sato (2014) *The Death Penalty in Japan: Will the Public Tolerate Abolition?,* Springer VS.

(Kitab Undang-Undang Hukum Pidana – KUHP) was introduced.[13] Although the Dutch eradicated their own capital punishment system in 1870, such punishment continues to exist in their colonialised country for a political reason. At the time of its independence, the Indonesian Constitution carried a transitional provision enacting Dutch law pending its replacement.[14] Indonesia's criminal code at that time authorised capital punishment and continues to do so to the present.

The existence of the death penalty became more complicated during the Soeharto Presidency. His military leadership played the death penalty threat as the instrument to create political stability. Following the reformation era, there was a social and political movement to eliminate the death penalty from Indonesian law; however, those efforts were unsuccessful, and the death penalty remains as an important feature of Indonesia's criminal law.[15] In 2007, the death penalty's constitutionality was ultimately tested before the Indonesian Constitutional Court.[16] Its constitutionality, however, was confirmed by the Court and it continues to exist, despite a ruling two years earlier that the right to life could not be derogated under any circumstances.[17] While there has been pressure from the international community from time to time whenever an execution was imminent, the Indonesian government has continuously been firm in its commitment to capital punishment. It is important to note that the complexity of this issue in Indonesia is also influenced by religious views justifying the punishment.[18]

Article 10 of the criminal code stipulates that penalties are divided into: primary penalties and additional penalties. Primary penalties consist of the death penalty, imprisonment, detention (such as 'city' detention or house arrest) and fines. Additional penalties cover the revocation of certain rights, the confiscation of assets and the public announcement of court verdicts. Laws that provide for the death penalty include: the 2009 Narcotics Law (Law No. 35); the 2003 Terrorism law (Law No. 15); the 1999 Law on Eradication of Criminal Acts of Corruption (Law No. 31); and, the 2000 Law on the Human Rights Court (Law No. 26). At present, there are at least

---

[13] Indonesia's Criminal Code came into force in 1946.

[14] Indonesia's Criminal Code carried over from the Dutch colony.

[15] T. M. Lubis (2015) *'Death Penalty and the Road Ahead: A Case Study of Indonesia'*, Centre for Indonesian Law, Islam and Society, Policy Paper No. 9.

[16] Indonesian Constitutional Court Decision No 2-3/PUU-V/2007.

[17] Indonesian Constitutional Court Decision No 019-020/PUU-III/2005; *see also* note 15 above.

[18] Indonesia's Muslim majority provides an important basis of support for retention of capital punishment. *See for example* R. Hood (2002) The Death Penalty: A Worldwide Perspective (3rd edition).

13 statutes in Indonesia covering death-eligible crimes. See Appendix A for specific statutes and citations.

3. *The Death Penalty for Drug Offences*

Based on the Narcotics Law, the death penalty is provided for as an optional punishment for certain offences related to the production, transit, import and possession of psychotropic drugs and narcotics. Additional laws that contain provisions which allow for a maximum sentence of death include Emergency Law No. 12/1951; The Military Criminal Code (Kitab Undang-undang Hukum Pidana Militer, KUHPM); Law No. 5/1997 on Psychotropic Drugs. The narcotics statute covers specific addictive substances and is classified into three categories, each is defined further by ministerial regulation. Meanwhile, the definition under the psychotropic statute covers any substance other than narcotics and also defined further by minister level regulation. Table 1 shows the details of the two drug offence categories.

While some countries having a death penalty in the statute are *de facto* abolitionist in practice, the Indonesian government is still active in carrying out executions. Despite the recommendation from the United Nations for placing a moratorium of the death penalty in its 2017 Universal Periodic Review, the Indonesian government has a record in executing at least 18 persons as of 2017 during the current President Jokowi Widodo's administration.[19] There have been no executions since 2016. Moreover, in the early years of his administration, the President promised that he would refuse clemency to those convicted and sentenced to death for drug-related offences.[20]

Table 1. Drug Offences Eligible for the Death Penalty	
Statute	**Eligible Crimes**
Law No. 35 of 2009 on Narcotics	• Production, import, export, or distribution of class I and class II narcotics in plant form exceeding 1 kilogram or non-plant form exceeding 5 grams. • Selling, buying, or brokering class 1 and class II narcotics in plant form exceeding 1 kilogram or exceeding 5 tree trunks or non-plant form exceeding

---

[19] "Perbandingan Jumlah Eksekusi Mati di 3 Tahun Jokowi dan SBY", CNN Indonesia, 21 Oct. 2017.

[20] Ibid.; see also, "Bali Nine Members Appeal Against Joko Widodo's Refusal to Grant Clemency", The Guardian, 8 Feb. 2015.

	5 grams. • Using class I, class II, and class III narcotics against another resulting in death or permanent disability • Ordering, promising, recommending, persuading, for minor to commit several narcotics-related offences.
Law No. 22 of 1997 on Psychotropics	• Organising usage, production, distribution, import, possess or saving class I psychotropic drugs.

The current picture suggests that the commitment to the death penalty remains in place. From 1998-2016, Indonesia carried out 45 executions, including 24 for drug offences.[21] As of 1 January 2019, there were at least 298 persons on death row, including 287 men and 11 women.[22] Of those on death row, more than half were sentenced for drug offences.[23] And among those sentenced to death for drug offences as of October 2018, 159 were Indonesians and 60 were foreign born detainees.[24] In the past three years alone, there have been at least 150 death sentences, suggesting a renewed commitment to the use of the death penalty, including 48 death sentences in 2018.[25] There were 15 foreign nationals accused of drug trafficking among those sentenced to death in 2018.

4. *Deterrence as Central Justification for Death Penalty in Indonesia*

Deterrence as a basis for law and policy first was stated in the context of economic crimes, in Article 1 of Law No. 21 in 1959, that incorporated the aggravation of punishments in the form of the death penalty beyond what earlier laws had proscribed.[26] Under this extension of Law No. 21, the threat to use the death penalty for economic crimes was expressly aimed at deterrence of corruption and other economic crimes. The death penalty was later incorporated into Law No. 11/PNPS/1963 on the Eradication of Subversive Activities, where violators of Article 13 under Article 1 will be eligible for the death penalty.[27] Under both these developments, which were

---

[21] LBH Masyarakat, Jakarta: monitoring data, as of 22 Mar. 2019.

[22] Ibid. According to Amnesty International, there were 308 persons on death row. See *"Death Sentences and Executions 2018"*, Amnesty International, ACT 50/9870/2019.

[23] See note 21 above; see also, *"The Death Penalty for Drug Offences: Global Overview 2018"*, Harm Reduction International, Feb. 2019.

[24] *"Perpetuating Lies: 2018 Indonesia Death Penalty Report"*, Institute for Criminal Justice Reform, Oct. 2018.

[25] The data are aggregated from three sources: Harm Reduction International, Amnesty International, and Death Penalty Worldwide.

[26] *"Death Penalty Policy in Indonesia"*, Institute for Criminal Justice Reform, Dec. 2017, at p. 75 (citing the Elucidation of the Government Regulation in Lieu of Law No. 21 of 1959) (hereafter, ICJR 2017).

[27] Ibid., at pp. 75-6.

non-murder crimes or drug crimes, the death penalty charges were designed to create fear and a deterrent effect for would-be violators of those laws.[28] The place of deterrence in Indonesian criminal law was confirmed during the 1963 National Law Seminar, where the participants suggested that "criminal punishment incorporated *hudud* and *qishash* for crimes under Islamic sharia law for Muslims to be used by judges in special circumstances."[29]

A decade later, the death penalty for drug traffickers was justified as a measure to avoid subversion of the government through "narcotic" use.[30] Therefore, smugglers and dealers were sentenced to death to preserve "society." Several political parties and parts of the military endorsed this view.[31] This led to the incorporation of Law No. 9 of 1976, which introduced the death penalty as a part of sentencing framework under narcotic regulations in Indonesia.[32] Article 59 (2) of Law No. 5 of 1997 extended the death penalty, in two ways: to the distribution of psychotropic drugs, and to offences that are "organised." In general, the politics of Law No. 5 of 1997, made the death penalty available for distributors of psychotropic drugs in three ways: "(i) elaborates in detail [the] punishment regarding psychotropic drugs; (ii) makes all abusers of psychotropic drugs eligible for criminal punishment; and (iii) states that the existence of severe punishment is expected to be a deterrent and therefore reduce the quantity of psychotropic abusers."[33]

In the current era, popular support for the death penalty in Indonesia is tied to the declaration of a 'national emergency' regarding drug crimes, an emergency that for the government requires severe punishments.[34] Public opinion polling is rare in Indonesia and not as rigorous as in the West, but these studies showed support for the death penalty of around 75 %. More recently, a poll fielded by Indo Barometer in March 2015 found that 84 % agreed or strongly agreed with the death penalty for drug distributors.[35]

[28] The death penalty was later extended in 1964 to Law No. 31 governing the Basic Provisions of Nuclear Energy. Ibid.

[29] A. Kasman Singodimedjo, Bahasan Umum mengenai Pemrasaran Asas-Asas tata Hukum Nasional dalam Bidang Hukum Pidana, in Seno Adji, Ibid, at p. 64, cited in ICJR 2017.

[30] Directorate General of Laws and Regulations, Department of Justice, Sejarah Pembentukan Undang-Undang Republik Indonesial No. 9 Tahun 1976 tentang Narkotika, p. 11.

[31] ICJR 2017.

[32] ICJR 2017 at p. 84.

[33] Murtiningsih, *Kebijakan Hukum Pidana dalam Penanggulangan Tindak Pidana Psikotropika*, Tesis, 125, 131(Semarang: Universitas Diponegoro, 2001), cited in ICJR 2017 at pp. 84-5.

[34] *"Presiden Jokowi: Indonesia Gawat Darurat Narkoba"*, Kompas.com, 4 Feb. 2015 (last accessed 12 Feb. 2017).

[35] "Kepuasan publik jelang setengah tahun pemerintahan Jokowi–JK" [Report of national survey fielded 15–25 Mar. 2015], Indo Barometer, Mar. 2015.

Although public opinion polling is infrequent and does not always use rigorous methodology, survey results consistently show support for the death penalty of around 75 %[36]

The emergency reflected evidence accumulated over several years by the National Narcotics Board (BNN) that more than 50 deaths each day were "caused" by drug abuse, and drug use prevalence in Indonesian society at 2.6%, or 4.5 million people.[37] However, the validity of those estimates have been questioned by epidemiological research in Indonesia, with calls for more accurate measures using systematic and contemporary methods.[38] Popular support for deterrence followed these beliefs[39] and was reinforced by statements from government ministries. For example, the head of BNN said, within the past year, that the "*death penalty execution is necessary to redeem our nation.*"[40] A year ago, the Attorney General said that "*[a]s long as … laws still stated that death penalty is applicable, there are no other choices not to carry on [death execution] when all aspects are fulfilled.*"[41] The Speaker of the House of Representatives of Indonesia recently said that "*[t]he slow process of death penalty does not generate deterrent effect towards drug dealers or smugglers. For those who [are] already sentenced to death, we will ask for immediate execution.*"[42] On deterrence, the Head of the National Narcotic Agency (BNN) said "*[t]he certainty on death execution may generate real deterrent effect towards the drug dealers.*"[43] And, the Director of Drug Crimes for the National Police Agency said "*[i]t is clear, the effect [of death penalty] is very significant. The effect is great.*"[44]

---

[36] D. McRae (2017) "*Indonesian Capital Punishment in Comparative Perspective*", 173 Journal of the Humanities and Social Sciences of Southeast Asia 1.

[37] "*Indonesia uses faulty stats on 'drug crisis' to justify death penalty*", The Conversation, 4 Feb. 2015 (last accessed 3 May. 2019); *see also*, Badan Narkotika Nasional bekerjasama dengan Pusat Penelitian Kesehatan Universitas Indonesia. Laporan Survei Penyalahgunaan Narkoba di Indonesia: Studi Kerugian Ekonomi dan Sosial akibat Narkoba, tahun 2008. Jakarta: Badan Narkotika Nasional, 2008; Badan Narkotika Nasional bekerjasama dengan Pusat Penelitian Kesehatan Universitas Indonesia. Ringkasan Eksekutif Survei Penyalahgunaan Narkoba di Indonesia: Studi Kerugian Ekonomi dan Sosial akibat Narkoba, tahun 2011. Jakarta: Badan Narkotika Nasional, 2011.

[38] Irwanto, Dewa N. Wirawan, Ignatius Praptoraharjo, Sulistyowati Irianto, Siti Musdah Mulia on behalf of 11 signatories (2015)"*Evidence-informed response to illicit drugs in Indonesia,*" 385 The Lancet pp. 2249–2250.

[39] D. McRae, see above note 36. See, also*, "A key domino? Indonesia's death penalty politics",* Lowy Institute for International Politics, Mar. 2012.

[40] "Buwas: Hebatnya Indonesia, Hukuman Mati tapi Orangnya Tak Mati-mati", detiknews, 7 Feb.2018. (last accessed 3 May 2019).

[41]"Jaksa Agung soal Hukuman Mati: Sebenarnya Tinggal Tembak, tapi…", detiknews, 7 Feb. 2018. (last accessed 3 May 2019).

[42] "*RUU Narkotika Percepat Hukuman Mati Bandar",* Wartakotalive, 6 Apr. 2018. (last accessed 3 May 2019).

[43] "Polri Klaim Eksekusi Mati Mampu Tekan Kasus Narkoba", Republika, 28 Sep. 2018. (last accessed 3 May 2019).

[44] "Eksekusi Mati Terpidana Berdampak Signifikan Tekan Peredaran Narkoba" RMOL, 28 Sep. 2018. (last accessed 3.May 2019).

The most recent statements of law, under Law No. 35 of 2009 on Narcotics, articulates the justifying ideology of the policy to execute drug traffickers, and shifts the focus of the law squarely onto the consequences for users of the actions of the drug traffickers. In addition to reaffirming the role of the death penalty to deter traffickers, the law sought to increase the budget for treatment and rehabilitation "of the victims of narcotics, psychotropics, and other addictive substances."[45] This softening of drug law and policy shifts its center of gravity from deterrence and punishment, or supply reduction aimed at traffickers, to demand reduction, aimed at drug users.

Still, the adoption of the law included dramatic language about the depth of injury to social and political culture and the very fabric of Indonesian society, raising the stakes and expectations for deterrence. The law revision argued "*that narcotic distribution will cause greater threats towards the livelihood and national values that at the end of the day will weaken national resilience.*[46] The Constitutional Court went further, declaring in a 2007 opinion that narcotics crimes are crimes against humanity that can "*annihilate mankind, slowly but surely …. All the human intellect and mind are massively damaged.*"[47] The government contributed to the Court's view in the 2007 ruling, declaring that as a result of narcotics crimes, "*a person is made into a living dead who no longer has the potential to build civilisation and culture*" and "*continuing … to damage the order of life.*"[48] These are high stakes for any legal policy, placing on the law the burdens of the strength of social and moral norms and the general well-being of society. Ascribing the power of societal cohesion to drugs places a heavy normative burden on drug policy and the institutions that carry out those policies.

This framing links deterrence of drug use and trafficking to the preservation and flourishing of Indonesian society, the dignity of drug users and their families, and essential freedoms. It places the question of the deterrence of narcotics and psychotropic drugs in the realm of human rights, with the suppression of drugs linked to economic security, freedom from hunger, freedom from violence, and emotional and physical health.

---

[45] Indonesia*,* MPR RI Decree No VI/MPR/2002 on Recommendation pertaining to the Report on the Implementation of the People's Consultative Assembly Decree by the President, DPA, DPR, BPK, and MA. Cited in ICJR 2017 at 120. One interesting amendment to this law was the upgrade of the status of BNN as a non-ministry institution that is authorized to conduct inquiries and investigations of narcotic crimes.

[46] Indonesia, *Law No. 35 of 2009 on Narcotic,* General Elucidation. The death penalty was seen as part of the nationwide effort to create a strong deterrent effect towards both the users and distributors of banned narcotic substances.

[47] Indonesia Constitutional Court, *Case Decision No. 2/PUU-V/2007,* p. 131.

[48] Ibid.

This further extends the burden on the death penalty as social policy, well beyond the deterrent effects of other punishments, to be both effective and humane while reinforcing human dignity and autonomy. As a policy matter, this creates expectations that the death penalty can produce reductions in key indicators of harm that are marginally and measurably greater than the threat or reality of the death penalty.

This project will test these assumptions and provide estimates of the comparative advantage of the harshest penal measures on the control of drug use and its threats to morbidity and mortality from drugs and its related health deficits.

C. Overview of the Proposed Study

The proposed study of the deterrent effects of the death penalty on drug crimes and other crimes will adopt methods widely used in research in the deterrence studies in the U.S. and elsewhere in the West over the past two decades. The study will be conducted at two levels of data collection and analysis: individual indicators of drug use, drug selling, or the commission of other crimes, and aggregate effects of the death penalty on multiple indicia of health, drug use, drug trafficking, and other crimes.

At the individual level, we will assume that persons considering the use or trafficking of drugs will avoid these behaviours due to the threat of detection, arrest and punishment. We also assume that their behaviours will be more sensitive or responsive to the risks of execution, and their behaviours will be more sensitive to execution risks compared to the risks of other punishments. At the aggregate level, we will assume that drug markets and social indicators of drug use and drug-related health problems will be sensitive to execution risks, again more sensitive than to risks of other forms of punishment.

The study period will be, the years beginning in 2009 and continue for the duration of the research.[49]

---

[49] We prefer the study period to begin in 2009, for an 11-year study window, since 2009 saw the introduction of the most recent and significant law change. This benchmark year was prior to a recent period of increases in death sentences and executions, which began in 2015.

II. DETERRENCE FRAMEWORK

A. Basic Concepts

While some states execute on the basis of retribution or a belief in a moral imperative based on the harm of the crime, many others do so believing that executions prevent further crimes by deterring other people from committing them. Whether the death penalty is reserved for murder or also applied to drug crimes or terrorism, belief in its deterrent power remains deeply embedded in the social and political culture in states that execute. The ambition of deterrence is to make threats credible to the point where they influence behavioural choices. Retentionist states use the threat of execution to signal to those contemplating a death-eligible offence that they face is a substantial risk of dying at the hands of the state if they commit the crime and are caught and convicted.

The conceptual premise is that a would-be offender, knowing about the threat of execution, would forego the act because the cost (death) is unacceptably high and well in excess of any benefits from the crime.[50] Their decision to forego the prohibited act is a function of the severity of punishment, so that the risk of execution would have a greater deterrent effect than the next most serious punishment of a lengthy prison term that could result in a natural death in prison. It assumes a rational actor whose risk-reward calculus would lead to the avoidance of a capital crime and whose perceptions of risk are well calibrated to the likelihood of execution compared to the next most serious penalty.[51] It also assumes that risks are substantial and observable.[52]

A detailed review of the empirical research on deterrence[53] concluded that three preconditions of decision-making by criminal offenders are necessary for deterrence to be effective:

- *Knowledge*—Do offenders know and understand the implications of the law? Do they know which actions are criminalised and what will mitigate their culpability?
- *Rationality*—If so, will they allow that understanding to determine their conduct?

---

[50] G. Becker (1968) "Crime, punishment and deterrence: An economic approach,", 76 Journal of Political Economy 169; see also I. Ehrlich (1975) "The deterrent effect of capital punishment: A question of life and death", 65 The American Economic Review 397.

[51] Nagin and Pepper, see above note 2.

[52] R. Hjalmarsson (2009) "Does capital punishment have a 'local' deterrent effect on homicides?" 11 American Law and Economics Review 310.

[53] P. Robinson and J. Darley (2004) *"Does the criminal law deter?"* 24 Oxford Journal of Law 173.

- *Perceived net cost*—If so, are they likely to choose compliance as the more beneficial option? Is the punishment worth avoiding? This in turn requires assessment of three concurrent probabilities: (a) the probability of being caught and convicted, (b) the likely severity of a sentence, and the marginal increases in severity for each level of punishment, and (c) the delay in reaching the final stage of the most severe punishment.

The third precondition raises the most difficult challenges: assuming rationality in both perception and weighing of risks associated specifically with execution. In most instances, the risks are remote: drug traffickers are rarely caught, even fewer sentenced to death, and still fewer actually executed.[54] In the case of drug trafficking, its apparent high volume suggests that perceptions of risk are realistically low.

For both murderers and drug traffickers, with detection and punishment uncertain if not unlikely, and with the payoffs of drug trafficking well exceeding conventional returns, the net cost hurdle is likely to defeat deterrence. That is, if the benefits of drug use or trafficking are valued higher than the risks and punishment costs associated with the act, would-be offenders might prefer the illegal activity rather than forego it fearing punishment. Empirical research has shown that the calculus drug offenders apply in their decision making renders deterrence simply a component of their task to be managed and avoided. But it hardly changes how net costs are evaluated.

There also are personal rewards that alter the rationality of decision making. Economic necessity, emotional rewards and other non-rational considerations make severe penalties unlikely to deter many acts of murder, drug trafficking or terrorism. Several ethnographic studies of decision making by drug traffickers have shown the remoteness of detection and punishment in their thinking. Both in the U.S. and elsewhere, even with the death penalty for major drug crimes, there is no evidence that severe punishments—either death or life in prison without parole—have affected the price, availability or demand for drugs. Even when there is a small probability of detection and punishment, these factors are diminished in the calculus of deterrence among active offenders.[55] Risks tend to be underestimated and rewards inflated by many criminal offenders,[56]

---

[54] See, for example, S. Phillips and A. Simon (2014) "Is the modern American death penalty a fatal lottery? Texas as a conservative test", 3 Laws 85.

[55] For basic expressions of the principles of discounting and risk, see D. Kahneman and A. Tversky (1979). *"Prospect theory: an analysis of decision under risk"*, 47 Journal of the Econometric Society 263; *see also* A. Tversky and D. Kahneman (1992) *"Advances in prospect theory: cumulative representation of uncertainty"*, 5 Journal of Risk and Uncertainty 297.

[56] See, for example, T.Yokoyama and T.Takahashi. (2013) "Mathematical neurolaw of crime and punishment: the q-exponential punishment function", 4 Applied Mathematics 1371.

defeating the ability of deterrence to overcome the "perceived net cost" hurdle of rational decision making.

We expect the same calculus to be true for drug use. There are intrinsic rewards to drug use including both pleasure and relief from pain or sickness. But there also are personal costs to drug use that are consequential if not life-threatening. But in addition to the legal risks and costs of drug use, there are additional potential extra-legal costs. Drug users face health risks from chronic disease and overdose mortality, withdrawal sickness, risks to their employment and family lives, and the social pain of ostracism from their communities. They also risk crime victimisation in the form of robbery of money or drugs. Accordingly, legal interventions that raise punishment costs may also deter drug use, leading to measurable declines in health and social indicators of drug use.

A third dimension of deterrence is its effects on drug markets. Analyses of market dynamics in response to punishment actions provide an alternative to the direct measure of criminal activity. Economic theory suggests that market dynamics and parameters will be sensitive to executions, incarceration and other forms of harsh punishment.[57] Under a theory of deterrence, drug traffickers would exact higher prices for drugs owing to greater risk and scarcity under threats of harsh punishment. Also, production and importation are likely to be lower in places where the risks of punishment from drug trafficking are greater. Producers and traffickers are likely to offset the greater risks of punishment by increasing prices in places that execute drug offenders. Also, if executions for drug crimes are a deterrent, availability of drugs will decline over time as executions for drug crimes increase.

B. Deterrence Model

The research will use two models to estimate the comparative effects of the execution and long term imprisonment on drug and other crimes.

1. Individual Deterrence Model

The individual model assumes that individuals will be deterred from drug use or trafficking by four potential sets of costs: the risks of execution, the risks of lengthy imprisonment, the perceived health risks of drug use,

---

[57] J. Caulkins and P. Reuter (2012) *"How drug enforcement affects drug prices,"* 39 Crime and Justice: A Review of Research 213; *see also,* S. Bushway and P. Reuter. (2011) *"Deterrence, economics, and the context of drug markets,"* 10 Criminology & Pub. Pol'y 183.

and perceived personal costs. The model for deterrence takes the form of equation (1).

$$(1) \quad Y_{it} = \gamma X_i + \alpha_1 D_1i + \alpha 2\ D_2i + \alpha_3 D_3i + \alpha_3 D_4i + T + u_i$$

where Y_i is the rate of drug or other crimes by person i in year. X_i is a vector of personal characteristics for individual i, D1i is the perceived risk of a death sentence, D2i is the perceived risk of a sentence of more than 30 years in prison, D3i is the perceived risk of a vector of health risks for person i, D4i is a vector of personal and social factors (employment, marriage, stigma) for person i T is a fixed effect for each year t in the panel, and u_i is an error term accounting for unobserved variance. The model will be estimated as a OLS regression with year fixed effects and robust standard errors.

2. Aggregate Deterrence Model

The aggregate model assumes that a set of indicators of drug market activity will be sensitive to the rates of both death sentences and executions, rates of imprisonment, health risks including overdose deaths and HIV infections, and the number of foreign nationals in prison. We include the latter as an estimate of the deterrent effects of punishment threats directed at people seeking entry to Indonesia for purposes of selling drugs or committing other crimes. We aggregate model of deterrence takes the form of equation (2).

$$(2) \quad Y_t = \gamma X_t + \alpha_1 D_1t + \alpha 2\ D_2t + \alpha_3\ D_3t + \alpha_3 D_4t + T, + u_i$$

Where Yt is a set of measures of drug market activity, including seizures, prices, drug arrests and health problems in year t, γ Xt is a vector of economic and social indicators in year t, D1t is the number of death sentences in year t, D2t is the number of prison sentences of drug or other offenders of more than 30 years in prison in year t, D3t is a vector of health risks in year t, D4t is the number of foreign nationals imprisoned for drug offences in year t, T is a fixed effect for each year t in the panel. As above, the model will be estimated as a OLS regression with year fixed effects and robust standard errors.

C. Translation to Indonesia Context

As in many societies, research to assess the effects of the death penalty and other punishments in the context of drug control policy requires collection and coordination of multiple datasets that cross institutional

boundaries. These datasets often are maintained in formats that require extensive coding to combine them into compatible formats for purposes of testing the models of deterrence described in the Section II.B. For example, data on executions and imprisonments are maintained separately from police data enforcement including drug arrests and seizures. Granular data on executions may require reading and coding court records, or scraping data from websites that otherwise are not available in digital form. Data on incarcerations are well maintained by corrections agencies but are not linked to police data on arrests and seizures. In turn, data on the seizures of drugs from illegal markets are kept by law enforcement or specialised drug bureaus that are separate from those that provide estimates of the market or street value of drugs. Each of these indicia are necessary to test the aggregate model of deterrence.

To test the individual model of deterrence requires different data, often that may need to be generated uniquely for this study. For example, data on drug-related health problems, such as overdose deaths or other morbidity linked to drug use, including HIV or hepatitis, often are not centrally maintained – if at all - or are only partially maintained by ministries that are separate and not linked to the ministries that measure crime and justice policies. Coordination of these veins of data and information is critical to generate estimates of the extent of drug-related deaths and related health indicia. These measures in turn are essential to validating the claims of the Indonesian government about the extent of societal injury due to drugs and fundamental to the claims of the government about the necessity of the death penalty to deter drug use and trafficking. And they are primarily, if not uniquely, available only through direct measures generated by representative samples of Indonesian citizens.

Accordingly, just as there are two levels of statistical models to estimate deterrence, so too are two levels of data collection necessary to evaluate the deterrence models in Section II.B *supra*. In the following section, we identify the measures and data sources that we will assemble to test the models that will in turn identify the extent of the deterrent effects of drugs and crime. The research design calls for measuring drug use and drug deaths, while on another level, the design calls for measuring drug supplies and their value. Each of these indicia of drug *problems* will then be assessed against the indicia of enforcement and punishment to assess the deterrent effects of execution and other punishments. Section III presents the data collection plans to test these models and draw policy inferences to inform constitutional law.

III. SAMPLES, MEASURES, SOURCES AND ACCESS

Each component of the study will require data collection from specific domains of the Indonesian criminal justice system, its public health ministries, drug enforcement agencies, and its drug treatment and social welfare agencies. In addition, we will collect data via survey research from population samples of the general public, prisoners, and persons in drug treatment facilities. The plans for sampling, measurement and data collection are described in this section. Appendix B shows the data sources for criminal justice and public health data sources are discussed in Section A of this part of the Feasibility Report. Appendix C shows the sampling plans for the survey research discussed in Section D.2. in this part of the Feasibility Report.

A. Incarceration, Death Sentences and Executions

1. Death Sentences

Information on all cases resulting in a death sentence is available on the websites of the Supreme and District Courts. This information includes crimes committed, evidence, notes of highlights on court proceedings and verdict. We will collect these data from the courts using law students and research assistants from local universities. Death sentences will be coded by offence, date of sentence, date of offence, court, offence location, demographics of the defendant, and whether the person is a native of Indonesia or a foreign national. We also will collect detailed information on the offence, including the types and amounts of drugs or other contraband, and other relevant details of the offence.

In addition, death sentences are monitored by the Institute for Criminal Justice Reform (ICJR) and information on recent cases is accessible via a web portal. Other organisations also monitor death sentences, and we will maintain access with those organisations.

2. Executions

There is no central source for records of executions. Data that are reported by NGOs and other organisations are compiled from multiple sources, including media, non-governmental organisations, and from formal data requests to the Ministry of Law and Human Rights. We will continue to work with each of these sources to monitor executions, and will incorporate information on the offence, the offender (demographics, residency) and the date and execution method. We will also make formal

requests to the Ministry of Law and Human Rights for reports, both contemporary and historical, on executions (*kantor wilayah hukham provinsi*).

As with death sentences, the ICJR maintains a web portal which documents death penalty cases in Indonesia per year and type since 2015.[58] By triangulating among data sources, we will develop accurate and reliable counts of executions for each year. Figure 1 shows the trends on executions for the past two decades, compiled from these same sources.

Figure 1. Death Sentences and Executions, Indonesia, 2000-2018
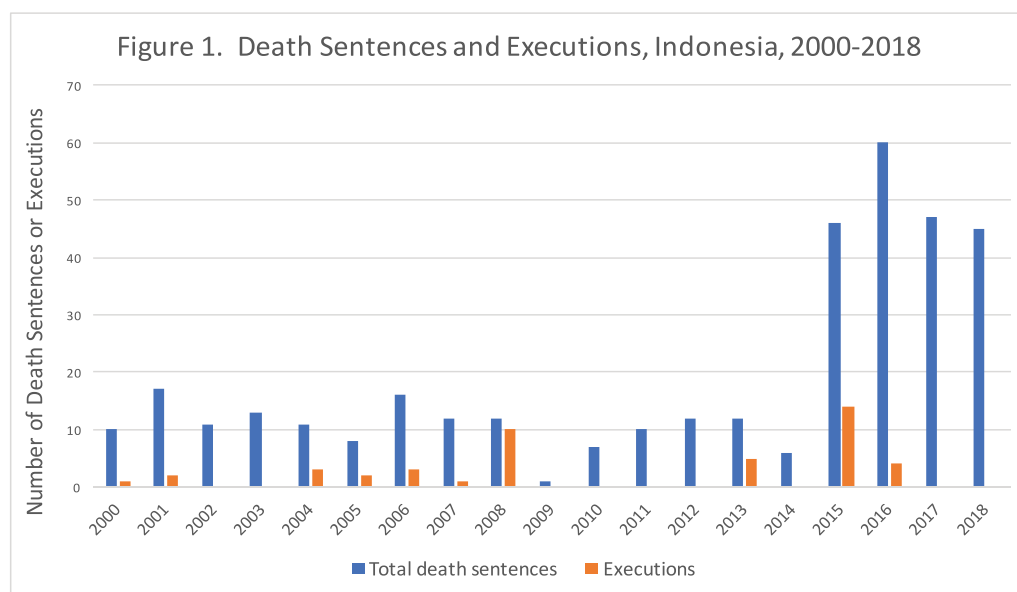
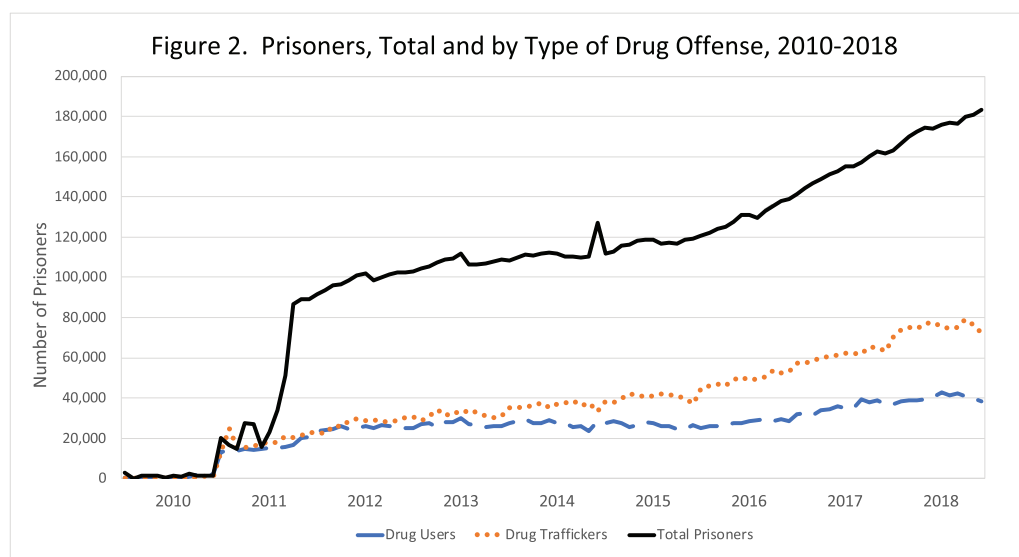Source: LBH monitoring, Amnesty International, Harm Reduction International

3. *Incarceration*

Data on incarceration are available from websites maintained by the Subdirectorate of Corrections in the Ministry of Law and Human Rights.[59] The data are organised in downloadable spreadsheets 2009 - present, and coinciding with the most recent and significant changes in the laws of narcotics and psychotropic drugs. The data include all persons in prisons and detention centers, and include specific data on total prison (*lapas*) population and total population in detention centers (*rutan*) for those awaiting trial. The data also include total prisoners incarcerated for drug-related offences, both use or possession cases and drug trafficking cases. Figure 2 shows incarceration trends from 2010-2018, by total number of

---

[58] www.hukumanmati.web.id

[59] http://smslap.ditjenpas.go.id

prisoners and prisoners incarcerated for drug possession and drug trafficking.

Figure 2. Prisoners, Total and by Type of Drug Offense, 2010-2018

Source:
http://smslap.ditjenpas.go.id/public/krl/current/monthly/year/2018/month/1/sort:jml_nkb /asc/sort:jml_nkp/asc/page/0:

Important for this study is that data are available on the particular article(s) listed in Narcotics Law No. 35/2009 that each prisoner was charged with, as well as the type/amount of substance involved in the case. This will support a detailed analysis over a sufficient time range to link incarcerations to drug/use selling as a predictor of drug market activity (volume, price elasticities).

The data are organised by province or region, providing a basis for localised analyses that can reflect meaningful differences between the islands.

B. Drug Enforcement

1. Drug Arrests

Drug arrests are one of several measures we will use to determine the sensitivity of drug trafficking or use to punishment threats. Data on drug arrests are available from the sub-directorate of the corrections database.[60]

The data provide a reliable estimate of arrests since most of those arrests for drug crimes will be held for a period of time in pretrial detention. The

---

[60] http://smslap.ditjenpas.go.id

data show the total number of prisoners held in detention centers (*rutan*) for whom a court decision has not yet been taken. Data in this database include the form of the evidence that each prisoner was charged with, as well as the type/amount of drug seized in the arrest.

2. Drug Seizures (by Type of Drug)

Drug seizures from traffickers are a critical component of the general deterrence model. We expect that the volume of drugs seized would decrease as the risk of harsh punishment, including death, increases. Moreover, if there is a unique deterrent component attributable to the death penalty, we would expect to see a marginal decrease in drugs seized compared to the threat of incarceration without death.

Data on amounts, types of drugs, and their value are reported annually to the UNODC by BNN and also the National Police. However, there is no central database for all information on drug seizures. Instead, data for drug seizures, as a sensitive area of information, and will require access agreements with different ministries. For example, BNN has a website with annual reports of drug seizures by type and amount of drugs are posted.[61] Additional BNN reports are available via request.[62] Additional data from the National Police Records are available via the National Police records via the *Electronic Aseanapol Database System*atau (e-ADS) which records transnational crimes in the ASEAN region including drug trafficking and seizures.[63]

From these data sources, we will be able to develop estimates of (a) annual drug seizures per drug type, (b) amount of drugs in circulation/ trafficked across the archipelago, (c) amounts of drugs and drug type seized by each of BNN (national office), and (d) the proportion of drug traffic threat the police claim to interdict.

3. Street Prices (by Type of Drug)

The general deterrence model suggests that drug prices will increase as the risk of arrest and punishment increases. If there is risk of capture and punishment, prices for larger quantities of drugs, whether for importation or retail distribution, will rise as traffickers externalise their risks to their customers. Moreover, we would expect that there would be a marginally greater increase in prices due to the marginally greater threat of execution compared to the threat of incarceration without death.

---

[61] https://ppid.bnn.go.id/jenisinformasi/informasi-setiap-saat

[62] PPID (Pejabat Pengelola Informasi dan Dokumentasi) at http://dephub.go.id/ppid

[63] http://www.interpol.go.id/en/about-us/profile/67-electronic-aseanapol-database-system-e-ads

Official government agency reports on drugs seized will contain some price information, but we are uncertain about the consistency and accuracy of those reports. We will certainly attend to data that are reported to UNODC. However, we recognise that additional data are needed that require looking beyond data from law enforcement and other government agencies. Accordingly, we will generate original data from interviews and from monitoring from NGOs. Survey data will be generated from interviews with people who use drugs in the community, in rehabilitation (treatment) centers, and in prisons. The details of the data collection plan for this component – samples, measures – are described in Section D *infra*.

Additional data on drug prices by type of drug will be collected from interviews with key drug user organisations. The first is the Indonesian Drug User Network/ Persaudaraan Korban Napza Indonesia (PKNI).[64] Through interviews conducted with drug users in prison and treatment, the prices of drugs bought and sold will be averaged for each year. The second NGO will be the Indonesian Drug Policy Advocacy Movement/ Gerakakan Advokasi Kebijakan Napza Indonesia (GAKNI).[65] GAKNI also compiles data from both law enforcement and user networks to develop estimates of drug prices by type of drug. Each of these NGOs monitors drug seizures and reports from the National Police and BNN on the street prices of drugs by type of drug, accessing the same data that are reported to UNODC. As drug prices will differ by city, island and time point, we will disaggregate our estimates of drug prices and seizure values by these parameters.

C. Drug Overdoses, Hospitalisations and Deaths

There are no reliable data sources for drug-related or overdose-related deaths in Indonesia. The various branches of the Ministries of Health do not report these data. Our scoping interviews revealed that data on deaths and hospital admissions from drug overdoses are inconsistently collected and are unreliable. Interviews with hospital personnel, public health morbidity and mortality reports are unreliable due to severe underreporting by patients. Persons presenting to hospitals or other medical facilities are reluctant to report their drug use due to fears of both stigma as drug users and also possible repercussions from law enforcement authorities.

Estimates of drug overdoses and deaths are available from annual surveys conducted by BNN. The estimates that are included in their annual reports are composite measures based on BNN's annual surveys. However,

---

[64] National Coordinator: Samsu Budiman, national.coordinator@officialpkni.org

[65] Coordinator: Didit Malada, gakni.socmed@gmail.com

these estimates are not reviewable, and BNN data on "drug deaths" based on a composite measure, are viewed as unreliable when compared to community monitoring and direct surveys of drug users and community samples.[66]

Rather than relying on data sources of uneven and unverifiable accuracy, we will generate and collect this information via surveys in communities, prisons, and rehabilitation centers. Estimates derived in this way have proven to be reliable and the method feasible. For example, community studies of women drug users from as recently as 2015 generated estimates of (a) lifetime number of non-fatal overdoses, (b) cause of most recent non-fatal overdose, (c) number of persons known to the survey respondent who have died of an overdose (network measures), and (d) the number of persons responded knows who have experienced a non-fatal overdose and survived.[67] We will incorporate these questions into the three survey components that we describe in section D.2 *infra*.

D. Drug Use and Drug Trafficking

Estimates of drug use and drug trafficking are critical dependent variables to estimate the deterrent effects of the death penalty and other punishments. Effective deterrence will result in lower estimates of drug use as potential users will be less willing to risk arrest and punishment. Sellers will be less willing to distribute drugs, also fearing harsh punishment.

Data to estimate these parameters of drug use will come from two sources. One is official data reported by BNN and other agencies through their annual surveys. Regular surveillance reports are another source of trends in drug use and drug-related health indicia. The second source will be a series of population surveys including community samples, prison samples, and samples from rehabilitation centers.

1. BNN Surveys and Public Health Data

Data are available from several sources with population estimate of people who use drugs. The estimates include drug use by drug type, frequency of use and route of administration (oral, smoked, inhaled, injected). These data sources will be consolidated to provide trends in each of several measures of drug use and drug-related health problems.

---

[66] "Indonesia uses faulty stats on 'drug crisis' to justify death penalty", The Conversation, 4 Feb. 2015 (last accessed 3 May. 2019).

[67] "Women Speak Out: Understanding Women who Inject Drugs in Indonesia", Indonesian Drug Users Network, Dec. 2016.

Appendix C summarises the methods and information in each of the BNN surveys.

BNN has produced bi-annual data since 2004 on rates of substance use based on its general household surveys and projections. They report the prevalence and frequency of different types of illicit substances. Their reports are published online and also can be obtained via public information requests. Using these data, BNN produces population estimates of drug users by drug type. Although their estimation methods are not reported, we will make contact with BNN to gain access to their source data for original analyses.

The Ministry of Health produces population estimates for people who use drugs and also use drugs intravenously. Data are collected periodically and are currently available for 2008, 2012, 2015. These data are considered by researchers as more methodologically rigorous because the Ministry uses methods that rely on multiple sources of data (e.g. treatment centers, harm reduction services) and representative surveys with people who inject drugs. Some data are available for download from the Ministry of Health Centre for Research and Information.[68] Most recently, the Ministry of Health, Subdirectorate of HIV, AIDS and STIs issued estimates and projections for HIV among people who inject drugs.[69] Data on HIV prevalence among people who inject drugs also are accessible via Ministry of Health websites and databases.[70] In addition, the HIV/AIDS Research Center at the University of Atma Jaya generate regular surveillance reports on several health indicia associated with drug use.[71]

2. Population Surveys: Community, Prisons, Rehabilitation Centers

The primary data source for the indicators of drug use, drug trafficking, drug-related health problems, and drug prices will be original survey data. We will contract with the HIV/AIDS Research Center at the University of Atma Jaya to conduct surveys to generate these data. Three surveys are planned: a community survey, a survey of prisoners, and a survey of persons in rehabilitation centers. This section of the Report discusses the

---

[68] http://www.pusdatin.kemkes.go.id.

[69] *"Estimates and Projection of HIV/AIDS in Indonesia 2015-2020"*, Kementerian Kesehatan Republik Indonesia, Feb. 2017.

[70] SIHAWEB Database (by province, city): http://siha.depkes.go.id/portal/perkembangan-kasus-hiv-aids_pims. *See also, "HIV Epidemiology Review Indonesia 2016"*, Kementerian Kesehatan Republik Indonesia, Feb. 2017.

[71] "Integrated Biological and Behavioural Surveillance on HIV, Hepatitis B, Hepatitis C, and Syphilis Transmission among Meth-users Population in Six Cities of Indonesia", AIDS Research Center Atma Jaya Catholic University of Indonesia, Aug. 2017.

sampling plans and parameters for each of these surveys. Details appear in Appendix D.

- **Prison Survey**. Three prisons from four regions with highest population of drug trafficking and drug use sentences as of December 2018 will be selected in each region (see Appendix D, Table 1). These prisons will be selected from each of four regions (Java/Bali, Sumatra, Lalimantan, Sulawesi). The selected prisons are also represented variation of general prison, narcotics prison, and female-specific prison. A total of 20 respondents will be randomly selected from each of the above prison. Due to its sensitive and political nature of the issue, the selection of foreigners and death sentence inmates will be done using a convenience sampling method to collect the maximum of 20 respondents in the selected prison. We will consult with the Ministry of Law and Human Rights – Prison Department (Dirjenpas) to finalise the selection of prisons and to establish arrangements to access prisoners and conduct interviews. Based on these parameters, we plan a total sample size of 240 for the prison study.

- **Household Survey.** The household survey will be conducted with a sample of approximately 4,000. The sampling design is critical to accuracy, and is based on preliminary estimates of a drug use prevalence, household size, and the population of persons age 15 or older.[72] We further assume a response rate of 60%, which will yield a final sample of 2,400. The sample will be distributed in 24 districts from 12 provinces (2 per province) that overlap with the regions covered in the prison sample.[73] The HIV/AIDS Research Center at the University of Atma Jaya is experienced in conducting these surveys on behalf of government and NGO sponsors, and their work regularly appears in scientific and academic journals.

- **Survey of Participants in Drug Rehabilitation Centers**. The study will survey inpatients and outpatients of drug treatment centers operated under BNN, Ministry of Health, and Ministry of Social Affairs. There are three types of centers: mandatory reporting (outpatient), hospital and community center facilities, and clinics. There are over 500 centers in 34 provinces, serving over 25,000 patients. The number of subjects projected for these surveys is estimated at 500, based on representation from 10% of the centers in the treatment network, and 20 subjects per center.[74] The total will include 100 women in

---

[72] "Designing Household Survey Samples: Practical Guidelines", UN, 2005.

[73] Sumatera Selatan, Sumatera Utara, Sumatera Selatan, NTB, Papua Barat, Papua, Sulawesi Selatan, Kalimantan Timur, Kalimantan Selatan, Banten, DKI Jakarta, and Jawa Timur.

[74] "Laporan Kinerja Direktorat Rehabilitasi Sosial Korban Penyalahgunaan Napza Tahun Anggaran 2018", Direktorat Jenderal Rehabilitasi Sosial kEmenterian Sosial Republik Indoneia, December/2018. *See also, "Laporan Tahunan Bnn Tahun 2016",* BNN, Jan/2017.

treatment centers. The samples will be selected from rehabilitation/treatment centers in the selected provinces (according to selected provinces in Household Survey and Prison Survey). Centers will be selected from the same four regions as the Prison Survey. Selection of the centers will be based on the size/capacity of the centers. This selection will not consider funding support of the centers (MoH, MoSA or BNN). More detailed data of the centers will be updated from BNN, MoH and MOSA before selections the centers including status of the center (active & non-active) and number of clients on treatment (male & female). Considering the small number of women who are using drugs, all women who are on treatment in the selected centers will be interviewed.

IV. Data Analysis Considerations

A. Analytic Strategy

Analysis will follow the two deterrence models. The first stage will be confirmation of the properties of each of the data sources. From that analysis, specific measures for each component of the deterrence models will be selected for analysis. The primary analytic methods will be structural equations models with latent variables[75] and difference-in-difference regression models.[76] The former will allow identification of causal effects using both panel (longitudinal) and cross-sectional data. Regression models will be used for panel (longitudinal) data to provide estimates of marginal deterrent effects of executions compared to incarceration terms and other punishment.

B. Limitations on Data

The research will be conducted using both observational (administrative) data and original data collection. There are limits to the former: researchers have little control over the data generating process, and so the weaknesses of the data may be hidden. Although diagnostics are available, they can narrow the uncertainty in the data and provide confidence in the analyses and deterrence estimates. Results will be presented with confidence intervals to provide boundaries in which we can identify with certainty the estimates of deterrent effects.

For the survey data, there are issues of sampling error and consistency of measurement across large samples under field conditions. Experienced researchers can minimise these limitations. Additionally, the large sample sizes will offset the risks of distortion or bias in the data collection procedures.

---

[75] K. Bollen (2014) Structural Equations with Latent Variables, Wiley.

[76] S.G. Donald and K. Lang (2007) *"Inference with difference-in-differences and other panel data",* 89 The Review of Economics and Statistics 221.

V. Research Potential and Recommendation

The two levels of study will provide a robust picture of deterrent effects of executions and other punishment practices. We will partner with experienced researchers with deep ties to and knowledge of the communities and behaviours they will survey.

We will partner with the HIV/AIDS Research Center at the University of Atma Jaya *(Unika Atma Jaya)*. Unika Atma Jaya will work with the DPP research team to design and implement the sampling plans for the three survey components. Unika Atma Jaya also will conduct interviews and manage the database from the interviews. They will adhere to confidentiality and other research ethics standards set forth by DPP and Columbia University, as well as the Unika Atma Jaya research ethics review.

All data will be maintained under strict security arrangements. All researchers will sign Protective Orders that obligate them to adhere to the confidentiality and data security provisions set forth in the Research Ethics Review and agreements.

A. Impact of Research

This research will provide information and empirical evidence to a variety of stakeholders and decision makers on one of the core assumptions that justify the use of the death penalty in Indonesia: the deterrent effects of death sentences and executions on drug trafficking as well as on murder. The study will estimate the extent that death sentences and executions deter drug crimes beyond the deterrent effects of other punishments including lengthy prison sentences.   In addition, the study will provide reliable estimates of the scope of drug problems in the country, including the deaths and hospitalizations due to drug use, other health problems that arise from drug use, the rates of drug use and drug selling in the population, the economic scope drug markets of buyers and sellers, and the impacts on local economies of drug markets.   The research will also show whether deterrent effects are present for both native born Indonesians as well as foreign born persons who participate in drug economies.

Each of these research domains will address one or more of the core assumptions in Indonesian law on the purposes of capital punishment. In addition, the study will speak to specific policies that go beyond criminal punishment to include the effects of drug use and trafficking on health, education, public safety, labor markets and migration. The information

from the study relevant of these policy domains will provide additional perspectives on social interventions to reduce and control drug problems across the population.

Appendix A
Crimes Eligible for the Death Penalty

Statutes	Crimes eligible for the death penalty
Indonesian Penal Code	• Crimes against the security of the state. • Collusion with a foreign power. • Betrayal to the enemy during the time of war. • Crimes against allied states and against heads and representative of allied states. • Premeditated murder. • Theft preceded with fore or threat resulting in serious injury or death. • Crimes relating to navigation. • Extortion and blackmail resulting in serious injury or death.
Indonesian Military Penal Code	• Crimes against national security in the time of war. • Military rebel in time of war. • Espionage. • Deliberately surrendering area in wartime. • Breaching pacts made with the enemy. • Insubordination during wartime. • Not reporting conspiracy for a military rebel. • Unlawfully destroying property by abuse of power. • Violence against the death or injured in wartime. • Group robbery.
Law No. 12 of 1951 on Firearms	• Unlawfully importing, producing, distributing, receiving, possessing, hiding, or exporting firearms from the territory of Indonesia.
Presidential Decree No. 5 of 1999 on Attorney General's Authority and Punishment Increase for Crimes on Equipment of Food and Clothing	• Economics crime to obstruct the government's program related to: a. Foods and clothing b. National and people security c. Act against the imperialism of economy and Western New Guinea separatism.
Government Regulation in Lieu of Law No. 21 of	Crimes on Economic particularly related to the equipment of foods and clothing (the statute is

1951 on the Increase of Punishment related to the Economics Crime	legislated as a response to high inflation at the time of the first presidency of Indonesia).
Law No. 31/PNPS/1964 on the Main Provisions of Atomic Power	• Revealing confidential information on atomic power.
Law No. 4 of 1976 on Revision to Articles under Indonesian Penal Code related to Aviation Crimes	• Hijacking or violence in the aircraft resulting in death or destruction of the aircraft. • Damaging aircraft or placing dangerous items that threaten aviation safety resulting in death or destruction of the aircraft.
Law No. 31 of 1999 on Eradication of Corruption	• Corruption resulting in state budget loss or jeopardizing national economy in a certain condition such as natural disaster, riot, or monetary crisis.
Law No. 26 of 2000 on Human Rights Court	• Genocide crime. • Crimes against humanity. • An attempt, a conspiracy on genocide and crimes against humanity. • A military commander or another person in charge which are liable for the genocide or crimes against humanity may subject to the death penalty.
Law No. 15 of 2003 on Eradication of Terrorism	• Terrorism causing damage or destruction on the national vital and strategic object • Terrorism damaging or destroying aviation traffic or its related equipment. • Unlawfully importing, producing, receiving, possessing, saving hiding, or distributing firearms, ammunition, or explosive for terrorism. • Using chemical or biological weapon for terrorism. • Planning or inducing another person to perform terrorism act. • An attempt, conspiracy, or aiding terrorism act. • Any person outside Indonesia giving aid or information for a terrorist act.
Law No. 23 of 2003 on Child Protection	• Liable for children involved in producing or distributing drugs.
Law No. 35 of 2009 on Narcotics	• Production, import, export, or distribution of class I and class II narcotics in plant form

	exceeding 1 kilogram or non-plant form exceeding 5 grams. • Selling, buying, or brokering class 1 and class II narcotics in plant form exceeding 1 kilogram or exceeding 5 tree trunks or non-plant form exceeding 5 grams. • Using class I, class II, and class III narcotics against another resulting in death or permanent disability • Ordering, promising, recommending, persuading, for minor to commit several narcotics-related offences.
Law No. 22 of 1997 on Psychotropics	• Organising usage, production, distribution, import, possess or saving class I psychotropic drugs.

Appendix B
Categories of Narcotics under Indonesian Minister of Health Regulation No. 20 of 2018

Category I Narcotics

- Opiates
- Coca
- Cannabis
- Khat
- Narcotics and Psychotropics

Category II Narcotics

- Psychotropics, Opioids and Derivatives
- Morphine Derivatives
- Psychotropics

Category III Narcotics

- Other Narcotics

Report No.	Documents	Description
1.	BNN Research Results on National Survey on the Prevention and Eradication of Illicit Abuse and Circulation of Drugs in Workers' Groups in 33 Provinces in Indonesia in 2012	The purpose of this BNN Research of 2012 is for the development, current reference and dissemination of research outcome that has been conducted by BNN specifically in the scope of P4GN (Prevention of Eradicating the Abuse and Illicit Circulation of Drugs)
2.	BNN Research Results on the 2013 National Survey of Illicit Abuse and Circulation of Drugs in the Transportation Sector in Indonesia	The purpose of this research is for the development, current reference and dissemination of research outcome that has been conducted by BNN specifically in the scope of P4GN (Prevention of Eradicating the Abuse and Illicit Circulation of Drugs) with focus on the field of public transportation.
3.	National Survey of Narcotics Abuse Prevalence for Fiscal Year 2014	This 2014 study is a continuation of the study on drug abuse impact in the form of loss of economic and social costs from drug abuse in 2004 and 2008 and 2011.
4.	Narcotics Abuse Prevalence Survey in Household Groups in 20 Provinces in 2015	This survey was driven by the prevalence number of ever used drug abuser in the household group which was stagnant around 2.4% (between 2005 and 2010) while the overall number of drug abuser number in the last one year was decreasing from 0.8% (2005) to 0.6% in 2010.
5.	Results of Drug Abuse and Illicit Drug Circulation Surveys in Groups of Students and College Students in 18	This survey was driven by the impact of drug abuse in the group of students and college students which could affect the future of the nation. Such survey is expected to be able to assess

	Provinces in 2016	the impact of the drug abuse by the monitoring of prevalence number, current data update, and the effectivity of prevention program. In 2016 BNN in cooperation with Center of Health Research University of Indonesia conducted survey on the drug abuse in the group of students.
6.	National Drug Abuse Survey in 34 Provinces of 2017	The purpose of this survey is to obtain the rate of workers who consume cigarette, alcohol, and other addictive substance in Indonesia
7.	Executive Summary on Drug Abuse and Illicit Distribution Survey in 2018	In general, this study was conducted in order to obtain the prevalence rate of drug abuse in the worker group, students, universities students and to obtain information on household susceptibility in facing drug abuse threat in 13 province in 2018.

Appendix D
Sampling Plans

The basic assumption that is applied to calculate the sample size are: [a] Indonesia is divided into five region of Sumatera - region 1, Java/Bali – region 2, Kalimantan – region 3, Sulawesi – region 4, and others – region 5; and [b] Age of respondent is ranged between 15-59 years old. Detail information for each survey is as follows:

A. Prison Survey

Three prisons with highest population of drug trafficking and drug use sentences as of December 2018 will be selected in each region (see table 1). The selected prisons are also represented variation of general prison, narcotics prison, and female-specific prison.

Region	Prison	Provinces	# Drug trafficking inmates	# Drug use inmates
I – Sumatera	1. Lapas Kls II A Labuhan Ruku	Sumatera Utara	1568	159
	2. Lapas Kls II A Binjau	Sumatera Utara	1453	489
	3. Lapas Kls II A Pematang Siantar	Sumatera Utara	320	1021
	4. Lapas Perempuan Kls IIA Palembang	Sumatera Selatan	358	25
II – Java/Bali	5. Lapas Kls I Jakarta Pusat	DKI Jakarta	2438	112
	6. Lapas Kls I Cipinang	DKI Jakarta	2118	1011
	7. Rutan Kls II Surabaya	Jawa Timur	922	1552
	8. Lapas Anak Perempuan Kls II B Tanggerang	Banten	45	376
III – Kalimantan	9. Lapas Kelas II A Banjarmasin	Kalimantan Selatan	1687	796
	10. Lapas Perempuan Kls IIA Martapura	Kalimantan Selatan	349	8
	11. Lapas Kelas II A Banjarmasin	Kalimantan Selatan	1687	796
	12. Lapas Kelas II B Nunukan	Kalimantan Timur	383	437

IV – Sulawesi	13. Lapas Narkotika Kls II A Sungguminasa	Sulawesi Selatan	423	552
	14. Rutan Kelas I Makassar	Sulawesi Selatan	500	578
	15. Lapas Kelas II A Palopo	Sulawesi Selatan	285	24
	16. Lapas Perempuan Kls II A Sunguminasa	Sulawesi Selatan	108	75
V - Others	17. Lapas Narkotika II A jayapura	Papua	362	70
	18. Lapas Kelas II A Mataram	NTB	81	354
	19. Lapas Kelas II B Sorong	Papua Barat	180	4
	20. Lapas Perempuan Kls III Mataram	NTB	37	4

A total of 20 respondents will be randomly selected from each of the above prisons.

Due to its sensitive and political nature of the issue, the selection of foreigners and death sentence inmates will be utilized convenience sampling method to collect the maximum of 20 respondents in the selected prison that will be chosen by Ministry of Law and Human Rights – prison department (Dirjenpas).

The above calculation is resulted total sample size of 240 for prison study.

B. Household Survey

- Total sample size for household survey is calculated based on the following formula[77]:

$$n_h = (z)(r)(1-r)(f)(k)/(p)(n)(e^2), where$$

> n_h is the parameter to be calculated and is the sample size in terms of number of households to be selected;
>   z is the statistic that defines the level of confidence desired;
>   r is an estimate of a key indicator to be measured by the survey;
>   f is the sample design effect, deff, assumed to be 2.0 (default value);
>   k is a multiplier to account for the anticipated rate of non-response;
>   p is the proportion of the total population accounted for by the target population and upon which the parameter, r, is based;
>   n is the average household size (number of persons per household);
>   e is the margin of error to be attained.

- Data to calculate the above formula including: 2.7% drug use prevalence in Indonesia by 2019 projected by BNN[78], 3.9 as average number of household members[79], 76% as proportion of population aged >15 years old[80], design effect 2, response rate 60%
- From the above calculation, total sample size required for household survey study is 4006. This number will be proportionally distributed to selected 12 provinces of prison survey i.e. Sumatera Utara, Sumatera Selatan, NTB, Papua Barat, Papua, Sulawesi Selatan, Kalimantan Timur, Kalimantan Selatan, Banten, DKI Jakarta, and Jawa Timur. Number of samples that will be interviewed in each province will be 334 and is rounded to 400 samples. Therefore, total samples is 4800 for 12 provinces.
- Number of samples in each selected province will be divided into 2 districts that selected based on proportional to size (PPS) using number of the population of the districts (200 samples per districts). The number will be allocated to 4 sub-districts that represent status of the administration (2 rural and 2 urban). The selected sub-districts will be divided randomly into 5 census blocks where each block will be allocated 10 samples. Samples in each block will be selected randomly based on

---

[77] "Designing Household Survey Samples: Practical Guidelines", UN, 2005.

[78] "Laporan Akhir Survei Nasional Perkembangan Penyalaghuna Narkoba tahun Anggaran 2014", BNN, 2014.

[79] BPS – Indonesia Statistics retrieved from https://www.bps.go.id/dynamictable/2015/09/07/849/rata-rata-banyaknya-anggota-rumah-tangga-menurut-provinsi-2000-2015.html

[80] BPS – Indonesia statistics (https://www.bps.go.id/statictable/2016/04/04/1904/penduduk-berumur-15-tahun-ke-atas-menurut-golongan-umur-dan-jenis-kegiatan-selama-seminggu-yang-lalu-2008---2018.html)

list of households in the census block. All household-related data will be obtained from the Central Bureau of Statistics (BPS). Details of the sample selection as follows:
- o Number of provinces: *12 provinces*
- o Number of districts in each province: 2 ➔ 2x12: *24 districts*
- o Number of rural sub-districts in each district: 2 ➔ 2x 24: *48 rural sub-districts*
- o Number of urban sub-districts in each district: 2 ➔ 2x 24: *48 urban sub-districts*
- o Number of census blocks in each sub-district: 5 ➔ 5 x 96 sub-districts: *480 blocks*
- o Number of samples in each census block: 10 ➔ 10 x 480 census blocks: *4800 samples*

- In order to increase response rate, the list of household data provided by BPS will be updated by the survey team prior to data collection begun.

C. Drug Rehabilitation Survey

To calculate the sample size, the study will utilize data of inpatients and outpatients of drug treatment centers operated under BNN, Ministry of Health, and Ministry of Social Affairs
- Number of drug rehabilitation centers, usually called as IPWL (Institution receiving Mandatory Report) under supervision of Ministry of Social Affairs is 171 by in 34 provinces December 2018, including three centers managed directly by MoSA[81].
- Number of health services appointed as IPWL by Ministry of Health is 549 centers in 34 provinces including hospitals, community health centers and clinics[82].
- Number of drug treatment centers under supervision of BNN, including clinics established by BNN Districts or BNN Province is 215 centers in 34 provinces[83].
- Number of clients served in these centers: MoH (2017): 7695 patiens, MOSA (2018): 15.513 clients and BNN (2017): 18.776 clients
- Number of samples is determined purposively as 500 subjects (400 male and 100 female). The samples will be selected from rehabilitation/treatment centers in the selected provinces (according to selected provinces in household survey and prison survey). Therefore,

---

[81] "Laporan Kinerja Direktorat Rehabilitasi Sosial Korban Penyalahgunaan Napza Tahun Anggaran 2018", Direktorat Jenderal Rehabilitasi Sosial kEmenterian Sosial Republik Indonesia, Dec/2018.

[82] Keputusan Menteri Kesehatan Nomor No.HK.02.02/MENKES/615/2017

[83] "Laporan Tahunan BNN Tahun 2016", BNN, Jan/2017.

number of samples in each province will be 60. The number will be recruited from 6 centers in each province.

Selection of the centers will be based on the size/capacity of the centers. This selection will not consider funding support of the centers (MoH, MoSA or BNN).

More detail data of the centers will be updated from BNN, MoH and MOSA before selections the centers including status of the center (active & non-active) and number of clients on treatment (male & female)

Considering the small number of women who using drugs, all women who are on treatment in the selected centers will be interviewed.

AUTHOR

Jeffrey Fagan
Professor Jeffrey Fagan is Isidor and Seville Sulzbacher Professor of Law at Columbia Law School and Professor of Epidemiology at the Mailman School of Public Health at Columbia University. He is also a senior research scholar at Yale Law School. His research examines capital punishment and deterrence, alongside topics of policing, criminal law, and juvenile crime and punishment. He has been an expert witness on capital punishment to the U.N. Office of the High Commissioner for Human Rights. He served for six years on the Committee on Law & Justice of the U.S. National Research Council. He is a fellow of the American Society of Criminology, and served on its executive board for three years. He is also a former editor of the Journal of Research in Crime and Delinquency, and serves on the editorial boards of several journals in criminology and law.

CONTRIBUTORS

Dr Claudia Stoicescu (Research Associate)
Dr Claudia Stoicescu is a public health researcher and consultant with more than 10 years of experience researching substance use and social determinants in Southeast Asia, particularly in Indonesia. Her expertise includes advising and consulting for the United Nations, international organizations, service providers and governments worldwide. Claudia is presently affiliated with Oxford University's Centre for Evidence-Based Intervention and is a visiting scholar at Atma Jaya University's HIV and AIDS Research Center.

AIDS Research Centre, Atma Jaya University
The research team comprised of Professor Irwanto, Evi Sukmaningrum, Laura Neverndorff, Ignatius, Arie Rahadi, and Asmin Fransiska.

The Atma Jaya Catholic University of Indonesia AIDS Research Centre (ARC) was officially founded in 2010 as a collaborative project between Atma Jaya Catholic University of Indonesia and University of Illinois at Chicago. It was founded to respond to the HIV-AIDS and drug problem in Indonesia through research, capacity building and community service. The ARC focuses on policy studies and social-behavior research related to HIV-AIDS, reproductive health and sexual health, and the role of civil society in health sector development. It also focuses on the development of HIV-AIDS intervention for drug users, children and families affected by HIV-AIDS, and street children.

The Death Penalty Project

The Death Penalty Project (DPP) is a legal action charity based in the UK, working to promote and protect the human rights of those facing the death penalty. We provide free legal representation to death row prisoners around the world, with a focus on Commonwealth countries, to highlight miscarriages of justice and breaches of human rights. We also assist other vulnerable prisoners, including juveniles, those who suffer from mental health issues and prisoners who are serving long-term sentences.

For more than three decades, our work has played a critical role in identifying miscarriages of justice, promoting minimum fair-trial guarantees in capital cases, and in establishing violations of domestic and international law. Through our legal work, the application of the death penalty has been restricted in many countries in line with international human rights standards. To complement our legal activities, we conduct capacity-building activities for members of the judiciary, defence lawyers and prosecutors, and commission studies on criminal justice and human rights issues relating to the death penalty.

We have been commissioning, supporting and publishing independent academic research on attitudes towards the death penalty for almost a decade. We use original data from public opinion surveys and other empirical research to engage in dialogue with policy-makers and politicians, and challenge popular misconceptions around the death penalty.

All publications by The Death Penalty Project are available to view and download at www.deathpenaltyproject.org.

Lembaga Bantuan Hukum Masyarakat (LBHM)

Lembaga Bantuan Hukum Masyarakat (LBHM) is a frontline not-for-profit non-governmental organisation that provides free legal services for the poor and victims of human rights abuses; undertakes community legal empowerment for marginalized groups; and advocates for law reform and human rights protection through campaigns, strategic litigation, policy advocacy, research and analysis.

LBHM focuses its works in the following areas: abolition of the death penalty, drug policy, HIV and human rights, mental health, and the protection of LGBT rights. For further information please visit www.lbhmasyarakat.org