



Issue #05 Accidents

Fall | Winter 2024



DU

Journal of Delta Urbanism
Delft University of Technology

*Earth,
Humankind,
and the Haze Disaster*

Dicky Pelupessy

The Earth, Humans, and Haze Disaster¹ is an essay written in the wake of one of the worst forest fires to occur in Indonesia, originally published as an op-ed in Koran Sindo on 7 October 2015 under the title *Bumi, Manusia, dan Bencana Kabut Asap*². The essay draws on the book *The Angry Earth*³ by anthropologists Anthony Oliver-Smith and Susanna Hoffman, and on Lowell Carr's notion of disaster as the collapse of cultural protection⁴. It reveals an imbalance in the mutual relationship between humans and the Earth. The haze disaster is framed not as the result of an "Angry Earth," but as a consequence of human recklessness, systemic failure, and the erosion of preventive cultural structures—a warning born of human action, and one that continues to be ignored.

*EARTH, HUMANKIND, AND THE HAZE DISASTER*¹

For the umpteenth time, thick haze caused by forest and land fires engulfed the islands of Sumatra and Kalimantan. Heavy smog obstructed the routines of local residents. More critically, it posed significant health risks to the population. Yet again, the haze crossed our borders, affecting neighboring countries such as Singapore and Malaysia. Not only did it disrupt activities in these countries, but the the smoky air also put their citizens health in danger. Unsurprisingly, this led to strong condemnation by the governments of both countries.

The haze has become a recurring disaster in Indonesia. Having had widespread impact across the two major islands, it turned into a national disaster. President Joko Widodo gave the order to the National Disaster Management Authority (BNPB) and several related ministries to control the fire, as well as to mitigate the haze on September 4, 2015. The haze disaster worsened the following days.

EARTH AND DISASTER

The haze disaster we are currently experiencing reminds me of a book written by anthropologists Anthony Oliver-Smith and Susanna Hoffman, titled *The Angry Earth*. Published in 1999, the book essentially posits that during disasters, the Earth may appear angry with humans. However, the Earth does not actually harbor resentment toward humankind; rather, it is human beings who perceive the Earth as raging. In reality, human conduct fosters the notion of an "angry Earth." Furthermore, it is humans themselves who construct this notion in the first place.

Disasters do not occur due to the Earth's infuriation toward mankind. Instead, they result from human propensity to take risks, which makes them vulnerable to disasters. Often, humans ignore disaster risks. It is only when we take those reckless chances or even disregard them that the Earth appears outraged to us.



- 1 Translated from the original Bahasa Indonesia article by Dicky Pelupessy, published as "Bumi, Manusia, dan Bencana Kabut Asap" in Koran Sindo, October 7, 2015.
- 2 Pelupessy, 2015
- 3 Oliver-Smith & Hoffman, 1999
- 4 Carr, 1932

- 01 Fires tear through forests on Sumatra Island ignited by the unmanageable nature of dry season. Captured by Rony Muharman for Antara News, The Jakarta Post (2017).

Thus, what we call a disaster is actually the consequence of the disaster, not the disastrous event itself. For example, an earthquake is a natural phenomenon that turns into a disaster when we observe the ruins and casualties it leaves. Such devastating damages occur not only because humans take risks, such as living in earthquake-prone areas, but also because we exacerbate those risks by failing to enforce mitigation measures. In the case of earthquakes, it is not the earthquakes per se that injure or kill people. Instead, they are the byproduct of the collapsing human-made structures, a result of our neglect of the risks posed by seismic tremors that may exceed a building's structural capacity.

In the case of the haze disaster, it is abundantly clear that we, as humans, are the cause. We have ignored the potential aftermath of burning forests and land, regardless of the motives. Although the Indonesian proverb goes “kecil jadi kawan, besar jadi lawan” (a small flame is a friend, a large fire is a foe), we have disregarded the risks of torching woodlands and terrain during a prolonged dry season. Now, we are reaping the consequences of the land that we have set aflame. It seems as though Earth is retaliating against our deeds. We have failed to wise up after the fires and haze disasters of previous years. As a result, the Earth appears perpetually “angry,” striking back until—at some indeterminate point—we finally grasp the risks of indiscriminately setting fire to forests and land out of greed.

The ongoing haze disaster is a clear indication not only of our recklessness but also of our arrogance toward Earth. As Oliver-Smith (1999) pointed out, the relationship between humans and Earth is fundamentally mutual. A disaster, through its consequences, signifies an imbalance in the aforementioned mutualism. This slant is largely due to humanity's failure to adapt wisely to the planet they inhabit. The haze disaster is the result of humans refusing to live in harmony with Earth. Instead of caring for the planet, we burn what grows on its surface without restraint.



02 Aerial smoke from forest fires in Ogan Komering Ulu, South Sumatra, rises above a scorched landscape during the 2015 Indonesian haze crisis, Beawiharta for Reuters (2015).

CULTURAL PROTECTION

Disasters occur when humans overlook palpable risks and fail to maintain a mutual relationship with Earth or nature. Drawing on the work of sociologist Lowell Carr (1932), this situation arises due to the collapse of cultural protection within society. The haze disaster, on the one hand, is the direct result of forest and land burning. On the other hand, the irresponsible practice of combustion year after year demonstrates that both the mechanisms and those responsible for preventing fires have been ineffective, if not outright failures. Given the recurrent nature of the haze disaster, it is possible that those who should prevent these fires are instead complicit, either directly or indirectly, by remaining silent or feigning ignorance.

To prevent the resurgence of the haze disaster in future years, it is imperative that we build a "wall" of cultural protection capable of curbing heedless burning. Numerous elements of cultural protection call for development and reinforcement. One key aspect is leadership. Preventing the haze disaster requires governance, both local and national, that is proactive rather than reactive in pursuing forest and land fire prevention. This proactive authority can be identified by its initiatives aimed at shifting the mindset from a "reactive mentality" to a "preventive mentality," particularly among the apparatus responsible for preventing the repeated occurrence of the haze disaster. Hopefully, such leadership will come to fruition.



03 Traffic moves slowly under a thick haze in Palembang, Indonesia, as smoke from forest fires blankets the city on September 18, 2019, as captured by Qodir for AFP (2019),



04 A photograph taken by Hugo Hudoyoko for EPA (2015) shows a motorcyclist navigating the streets of Palangkaraya, Central Kalimantan, where the haze from forest fires tinted the air a deep yellow

Untuk kesekian kalinya kabut asap pekat yang disebabkan oleh kebakaran hutan dan lahan menyelimuti wilayah Pulau Sumatera dan Kalimantan. Akibat dari kabut asap ini adalah aktivitas normal warga menjadi terganggu. Namun, lebih dari itu, kabut asap ini membahayakan kesehatan warga. Untuk kesekian kalinya pula kabut asap terkirim ke negara tetangga, Singapura dan Malaysia. Kabut asap ini pun mengganggu aktivitas dan membahayakan kesehatan warga di Singapura dan Malaysia. Tak pelak, kecaman pun datang dari pemerintah dua negara tetangga tersebut.

Kabut asap telah menjadi bencana bagi Indonesia. Dengan cakupan bencananya yang besar di dua pulau besar, kabut asap telah menjadi bencana nasional. Ini terbukti dari diperintahkannya Badan Nasional Penanggulangan Bencana (BNPB) oleh Jokowi untuk menangani kebakaran hutan dan lahan dan mengatasi kabut asap. Jokowi memberikan perintah kepada BNPB dan beberapa kementerian terkait pada 4 September 2015. Alih-alih makin teratasi, beberapa hari terakhir bencana kabut asap justru makin parah terjadi.

BUMI DAN BENCANA

Bencana kabut asap yang sedang kita alami mengingatkan saya pada buku yang ditulis oleh antropolog Anthony Oliver-Smith dan Susanna Hoffman yang berjudul *The Angry Earth* (Bumi yang Marah). Buku yang terbit pada 1999 ini pada dasarnya menyatakan bahwa bumi tampak marah di mata manusia saat terjadi bencana. Namun, sesungguhnya bumi tidak marah kepada manusia. Manusia lah yang memersepsikan bumi yang marah kepada manusia. Manusia sendirilah yang membuat bumi yang marah seolah benar adanya. Lebih dari itu, bumi yang marah sebenarnya pun dikonstruksi sendiri oleh manusia. Bencana sejatinya terjadi bukan karena bumi yang sedang marah kepada manusia, tetapi diakibatkan oleh kecenderungan manusia (*human propensity*) untuk mengambil risiko yang menyebabkannya rentan terhadap bencana.

Pada kenyataannya manusia seringkali mengabaikan risiko bencana (*disaster risk*). Hanya pada saat manusia mengambil risiko atau bahkan mengabaikan risiko inilah kemudian bumi menjadi tampak marah bagi manusia. Dengan demikian, apa yang kita sebut sebagai bencana sebenarnya adalah dampak bencana, bukan bencana itu sendiri. Sebagai contoh, gempa bumi adalah peristiwa alam yang berubah menjadi peristiwa bencana saat kita mendapati dampaknya yang merusak dan menimbulkan korban. Dampak itu timbul akibat manusia yang bukan semata mengambil risiko—misalnya dengan tinggal di kawasan rawan gempa bumi, tapi lebih dari itu, malah memperbesar risiko dengan tidak melakukan upaya-upaya mitigasi.

Dalam bencana gempa bumi, bukan gempa bumi per se yang melukai atau membunuh manusia. Yang bisa melukai atau membunuh manusia sesungguhnya adalah runtuhnya bangunan buatan manusia akibat abainya manusia terhadap risiko dari guncangan (*tremor*) gempa bumi yang bisa melebihi daya tahan bangunan. Dalam bencana kabut asap jelas sekali terlihat bahwa kita manusia lah yang menyebabkannya. Kita lah yang abai terhadap apa yang mungkin terjadi dengan terbakarnya hutan

dan lahan, apa pun motif dilakukannya pembakaran. Selagi kita tahu atau pernah mendengar pepatah "kecil jadi kawan, besar jadi lawan", kitalah yang abai terhadap risiko melakukan pembakaran hutan dan lahan di tengah musim kemarau yang panjang. Akhirnya kita jugalah yang saat ini menuai bumi yang kita bakar. Bumi seakan sedang membalas tindakan kita membakar apa yang dimiliki bumi. Kita tidak pernah belajar dari pembakaran- pembakaran dan bencana- bencana kabut asap tahun-tahun sebelumnya. Alhasil, bumi pun seakan tak jera untuk marah dan membalas kita sampai kemudian -entah kapan- kita benar-benar menyadari risiko dari membakar hutan dan lahan secara sewenang-wenang karena keserakahan manusiawi kita.

Bencana kabut asap yang sedang kita tuai sekarang adalah bukti gamblang bukan hanya abainya kita terhadap risiko, melainkan lebih dari itu yaitu pongahnya kita terhadap bumi. Seperti yang dikatakan Oliver- Smith (1999) hubungan antara manusia dan bumi pada prinsipnya bersifat mutual. Bencana lewat dampak bencananya menandakan ada ketidakseimbangan (imbalance) dalam mutualitas (mutuality) hubungan antara manusia dan bumi. Ketidakseimbangan ini terutama disebabkan oleh kegagalan manusia untuk bisa beradaptasi secara bijak dengan bumi yang dipijaknya. Bencana kabut asap adalah akibat manusia yang tidak mau hidup secara harmonis dengan bumi. Alih-alih merawat bumi, yang dilakukan oleh manusia justru membakar apa yang tumbuh di atas bumi tanpa kendali.

PERLINDUNGAN KULTURAL

Bencana datang karena manusia mengabaikan risiko dan tak peduli untuk menjaga hubungan yang mutual dengan bumi atau alam. Hal ini terjadi akibat, meminjam apa yang dikemukakan oleh sosiolog Lowell Carr (1932), telah runtuhnya perlindungan kultural (the collapse of the cultural protection) di dalam masyarakat. Bencana kabut asap di satu sisi adalah akibat langsung dari pembakaran hutan dan lahan. Namun, di sisi lain, pembakaran secara tak bertanggung jawab dari tahun ke tahun menunjukkan bahwa baik mekanisme maupun mereka yang ambil bagian di dalam mekanisme pencegahan pembakaran tidak efektif bekerja, apabila tidak ingin disebut gagal.

Karena bencana kabut asap telah berulang kali terjadi, mungkin saja mereka yang seharusnya mencegah pembakaran justru ikut andil, baik secara langsung ataupun tidak langsung -mendiamkan atau pura-pura tidak tahu. Untuk mencegah bencana kabut asap terulang kembali pada tahun-tahun yang akan datang, mau tak mau kita harus membangun "tembok" perlindungan kultural yang dapat efektif mencegah pembakaran hutan dan lahan secara semena-mena. Ada banyak aspek di dalam perlindungan kultural yang harus dibangun atau diperkuat. Satu aspek yang penting adalah kepemimpinan. Mencegah bencana kabut asap memerlukan kepemimpinan -lokal hingga nasional- yang proaktif, bukan yang reaktif dalam mengupayakan pencegahan kebakaran hutan dan lahan. Kepemimpinan yang proaktif ini ditandai dari inisiatif-inisiatifnya yang bisa menciptakan perubahan mental dari "reactive mental " menjadi "preventive mental", terutama pada aparatus yang bertanggung jawab dan terkait dalam pencegahan berulangnya bencana kabut asap. Mudah- mudahan kepemimpinan seperti itu nyata adanya.

REFERENCES

- Oliver-Smith, A., & Hoffman, S. M. (Eds.). (1999). *The Angry Earth: Disaster in Anthropological Perspective*. Routledge.
- Carr, L. J. (1932). Disaster and the sequence-pattern concept of social change. *American Journal of Sociology*, 38(2), 207–218. <https://doi.org/10.1086/216030>
- Pelupessy, D. (2015, October 7). Bumi, manusia, dan bencana kabut asap [The earth, humans, and haze disaster]. *Koran Sindo*. Sindonews. <http://nasional.sindonews.com/berita/1051049/18/bumi-manusia-dan-bencana-kabut-asap>

PHOTOGRAPH REFERENCES

- Beawiharta. (2015, September 10). An aerial view of a burning forest at Ogan Komering Ulu in South Sumatra, Indonesia [Photograph]. Reuters. <https://www.reuters.com/news/picture/fires-of-sumatra-idUKRTS5FVR/>
- Hugo Hudoyoko/EPA, in Indonesia forest fires: Is the haze crisis out of control? BBC News, October 23, 2015. <https://www.bbc.com/news/world-asia-34612922>
- Muharman, R. (2017, May 19). Fires burn forest and land on Sumatra Island during the dry season [Photograph]. Antara News/The Jakarta Post. <https://www.thejakartapost.com/news/2017/05/19/forest-fires-hit-sumatra-again-causing-smog.html>
- Qodir, A. (2019, September 18). Motorists commute on a hazy day in Palembang, Indonesia [Photograph]. AFP/Getty Images. <https://edition.cnn.com/2019/09/18/asia/indonesia-malaysia-haze-arrests-intl-hnk/index.html>

JDU is a project by Delta Urbanism Research Group and DIMI Delft Deltas, Infrastructure and Mobility Initiative Delft University of Technology

Chief Editors

Baukje Kothuis, Fransje Hooimeijer, Taneha Kuzniecowa Bacchin, Delft University of Technology.

Editors JDU#5

Luca Iuorio, Tara Kanj, Delft University of Technology.

Editorial Board JDU#5

Elena Longin, Fransje Hooimeijer, Luca Iuorio, Maryam Naghibi, Sophia Arbara, Tara Kanj, Delft University of Technology.

Delta Urbanism Research Board

Barbara Dal Bo Zanon, Marcin Dąbrowski, Nanma Gireesh, Juliana Goncalves, Luca Iuorio, Tara Kanj, Qiaodan Liu, Elena Longin, Irene Luque Martin, Maryam Naghibi, Steffen Nijhuis, Koen Olthuis, Boaz Peters, Isabel Recubenis Sanchis, Francesca Rizzetto, Sarah Calitz, Daniele Cannarella, Diego Sepulveda, Sophia Arbara, Sridhar Subramani, Laura Thomas, Chris Zevenbergen, Delft University of Technology.

Advisory Board

Stefan Aarninkhof, TU Delft, Faculty of Civil Engineering & Geosciences
Richard M. Ashley, University of Sheffield, Department of Civil and Structural Engineering
Inge Bobbink, TU Delft, Faculty of Architecture & the Built Environment
Jeremy Bricker, TU Delft, Faculty of Civil Engineering & Geosciences
Carola Hein, TU Delft, Faculty of Architecture & the Built Environment
Marcel Hertogh, TU Delft, Faculty of Civil Engineering & Geosciences
Kanao Iuchi, Tohoku University
Bas Jonkman, TU Delft, Faculty of Civil Engineering & Geosciences
Filippo LaFleur, Politecnico di Milano, Urban Planning, Design and Policy
Yoonjeong Lee, Texas A&M University Galveston, Center for Texas Beaches & Shores
Nina-Marie Lister, Ryerson University, School of Urban & Regional Planning
Han Meyer, TU Delft, Faculty of Architecture & the Built Environment
AnneLoes Nillesen, DEFACTO Architecture & Urbanism, Rotterdam
Henk Ovink, Special Envoy of Water Affairs at Kingdom of the Netherlands
Bas Roels, World Wildlife Fund Netherlands
Diego Sepulveda, TU Delft, Faculty of Architecture & the Built Environment
Antonia Sebastian, University of North Carolina, Dept. of Geological Sciences
Dirk Sijmons, H+N+S Landscape Architects; TU Delft, Faculty of Architecture & the Built Environment
Danai Thaitakoo, Chulalongkorn University, Bangkok
Paola Viganò, École Polytechnique Fédérale de Lausanne; IUAV University of Venice

Editorial Staff

Tara Kanj, TU Delft, Faculty of Architecture & the Built Environment

Graphic Layout

bruno, Venice (Italy)

Typefaces

Union, Radim Peško, 2006
JJannon, François Rappo, 2019

Publisher

TU Delft OPEN Publishing
<https://www.tudelft.nl/library/openpublishing>

Frequency: 1 volume per year

Publication Funding

TU Delft Delta, Infrastructure and Mobility Initiative

Contacts

For any further information:
JDU-BK@tudelft.nl
<https://journals.open.tudelft.nl/jdu/>
www.deltaurbanism.org

*N.5 / Accidents / Practice / 01
Winter / Spring 2025*

Author

Dicky C. Pelupessy
Universitas Indonesia,
Indonesia
ORCID ID: 0000-0002-1760-2863

Keywords

Natural disasters ;Haze disaster; Cultural protection; Human-environment relations

Dates

Submitted: 15/04/2024
Reviewed: 10/01/2025
Accepted: 15/01/2025
Published: 13/05/2025

Citation

C. Pelupessy, D. (2025). Earth, Humankind, and the Haze Disaster. *Journal of Delta Urbanism*, (5). 10.59490/jdu.5.2024.8128

Type of license

Copyright © 2025 the authors.
Published by TU Delft OPEN Publishing on behalf of the author(s).

This work is licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence

All published contributions are submitted to a Blind Peer Review process except for the sections Dialogues and Dictionary.

COI

There is no conflict of interest

Contributor Statement

The author was responsible for all aspects of this work unless stated otherwise.

ISSN: 2666-7851
p-ISSN 2667-3487