INTERNATIONAL CRIMINAL LAW AND CLIMATE CHANGE

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I. INTRODUCTION

The problem of climate change has captured the attention of scholars and advocates from diverse academic disciplines that would ordinarily have little in common.[1] Part of the reason for this is the sheer magnitude of the problem.[2] According to the United Nations Intergovernmental Panel on Climate Change, there is evidence that current climate change patterns will produce "irreversible changes in major ecosystems and the planetary climate system."[3] Among many

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[1] The scholarly literature on climate change is enormous and growing, and a thorough review is beyond the scope of this Article. For a useful assemblage of the ways that scholars have studied climate change, *see generally* OXFORD HANDBOOK OF CLIMATE CHANGE AND SOCIETY 3 (John S. Dryzek et al. eds., 2011) [hereinafter OXFORD HANDBOOK OF CLIMATE CHANGE] (attempting to draw on "a representation of the best scholars" from diverse disciplines to "represent and engage with their literatures" to understand the many diverse causes and consequences of climate change).

[2] *See id.* at 3-4.

[3] *Climate Change*, UNITED NATIONS, http://www.un.org/en/sections/issues-depth/climate-change/ [https://perma.cc/7GD3-VF5U], (last visited Sept. 13, 2018).

other effects, the World Health Organization has documented the ways that climate change will have significant and likely deadly consequences for humans.[4] The WHO warns of the possibility of more and more deadly diseases, especially water-borne diseases, increased risks for the elderly and young children from warmer temperatures and air pollution, and risks to food production and crop yields.[5]

Legal scholars have begun to make important contributions to these discussions.[6] If even the relatively conservative estimates of the effects of climate change come true,[7] there will be enough legal issues for a generation of lawyers and scholars to address. How, for example, will the law of real property handle the ways that climate change will impact real estate values and uses?[8] How will the complex rules of water law change to address the consequences of long-term drought?[9] Criminal law, particularly international criminal law, has

See generally, *IPCC, 2013: Summary for Policymakers*, *in* CLIMATE CHANGE 2013: THE PHYSICAL SCIENCE BASIS. CONTRIBUTION OF WORKING GROUP I TO THE FIFTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (T.F. Stocker et al. eds., 2015) http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf [https:perma.cc/8QKT-PSNB].

[4] *Climate Change and Health*, WORLD HEALTH ORGANIZATION (Feb. 1, 2017), http://www.who.int/mediacentre/factsheets/fs266/en/ [https://perma.cc/3RPE-NG2F].

[5] *Id*. For a thorough survey of the likely consequences of climate change for many individuals, *see generally* KIRSTIN DOW & TAYLOR E. DOWNING, THE ATLAS OF CLIMATE CHANGE: MAPPING THE WORLD'S GREATEST CHALLENGE 64-67 (3d ed. 2011) [hereinafter DOW & DOWNING, ATLAS OF CLIMATE CHANGE] (describing the ways that climate change will affect food security, access to water resources, and human health).

[6] For an engaging summary of the various legal issues that might arise, and how legal scholars can contribute, *see* J.B. Ruhl & James Salzman, *Climate Change Meets the Law of the Horse*, 62 DUKE L.J. 975, 1007-1012 (2013) (analyzing ways that the effects of climate change will challenge diverse legal domains with new problems and new versions of old problems). For a thorough analysis of the legal instruments that have been or could be used to address aspects of climate change, *see* DANIEL BODANSKY ET AL., INTERNATIONAL CLIMATE CHANGE LAW 18-20 (2017). Bodansky and his co-authors survey both the legal issues that might arise as the effects of climate change become more pronounced, and the legal and policy documents that have evolved to address those challenges.

[7] *See, e.g.*, *Climate Change, supra* note 3; *Climate Change and Health*, *supra* note 4.

[8] *See, e.g.*, Holly Doremus, *Climate Change and the Evolution of Property Rights*, 1 U.C. IRVINE L. REV. 1091, 1101 (2011) (arguing that the "physical and biotic changes resulting from greenhouse gas accumulation will disrupt the expectations of property owners . . . undermin[e] the security of their investments and put[] pressure on current definitions and distributions of property rights").

[9] *See, e.g.*, Robert W. Adler, *Climate Change and the Hegemony of State Water Law*,

played a relatively small role in the larger debates.[10] To be sure, there have been a handful of scholarly trailblazers who have attempted to fashion a criminal law response to climate change,[11] but those efforts

29 STAN. ENVTL. L.J. 1, 10-17 (2010) (cataloging the ways that climate change will affect water use and the capacity of water law to address those changes).

[10] *See* Patrick J. Keenan, Charlotte Ku & Shirley V. Scott, *The Creation of a Climate Change Court or Tribunal*, *in* CLIMATE CHANGE AND THE UN SECURITY COUNCIL 66, 69 (Shirley V. Scott & Charlotte Ku eds., 2018) [hereinafter Keenan, Ku & Scott, *Climate Change Court*] ("[B]ecause it is a form of criminal law, international criminal law comes with significant restrictions as to how and when it can be applied.").

[11] There are three broad strands in this literature, although the strands are connected to and have influenced each other. The first is what scholars and advocates have come to call "green criminology." What began as a part of the critical theory movement has become its own subspecialty. For a brief scholarly history of green criminology, *see* Michael J. Lynch, *Reflections on Green Criminology and Its Boundaries*, *in* ROUTLEDGE INTERNATIONAL HANDBOOK OF GREEN CRIMINOLOGY 43, 43-45 (Nigel South & Avi Brisman eds., 2013). Lynch, whose work did as much as any scholar's to create and define green criminology, argues that the field grew from a desire to see criminology expand to find ways to protect the "environment and the various species that depend on a healthy ecological system." *Id*. at 44. Green criminology has come to focus on "exposing different instances of substantive social and ecological injustice," while devoting particular attention to the idea that harms to the environment are as important as other harms. Rob White, *Green Criminology*, *in* ENCYCLOPEDIA OF CRIMINOLOGY AND CRIMINAL JUSTICE 1976-77 (Gerben Bruinsma & David Weisburd eds., 2014). The field has been especially important in its attempts to broaden the concept of harm to include harms to the ecosystem and to future generations. It has also championed the idea that social and political power structures have contributed to ecological harms and harms experienced by people because of damage to the ecosystem. The second strand is one that has taken an explicitly criminal law approach and has centered around attempts to define and defend a crime of "ecocide." Growing out of a newspaper article decrying the environmental devastation caused by the U.S. military in Southeast Asia during the war in Vietnam, this thread has evolved into concrete attempts to ban ecocide. *And a Plea to Ban 'Ecocide,'* N.Y. TIMES, Feb. 26, 1970, at 38, *available at* https://nyti.ms/1LIvkbL [https://perma.cc/NZ7V-RSBU]. Polly Higgins, the advocate most associated with contemporary attempts to ban ecocide, has drafted a model statute that can be modified for various countries and legal systems. Polly Higgins, *The Model Law*, ERADICATING ECOCIDE, http://eradicatingecocide.com/the-law/the-model-law/ [https:perma.cc/S76M-QA49] (last visited Sept. 13, 2018). Higgins has argued that proposals to ban ecocide are an example of "[r]adical law," which has the potential to "completely change[] the landscape" of the law. POLLY HIGGINS, ERADICATING ECOCIDE *xvi* (2d ed. 2015) [hereinafter HIGGINS, ERADICATING ECOCIDE]. The ecocide literature has principally attempted to create and defend a crime that could be used to prosecute those whose actions have contributed the most to climate change. The final strand of this literature is the environmental crime scholarship. Scholars and advocates working in this vein have attempted to expand the use of criminal environmental statutes to address behavior that harms the environment or some element of the ecosystem. *See,*

have gotten little traction in the policy realm so far.[12]

To this point, two principal problems have hampered efforts to develop an international criminal law response to climate crimes.[13] One of the problems is political: new crimes or tribunals will almost certainly require sovereign states to cede some of their sovereignty to a juridical body to hold those states accountable for their past or ongoing conduct.[14] Along with co-authors, I addressed many of these issues in earlier work.[15]

The second problem is what I call the problem of purpose.[16] What exactly would be accomplished by using international criminal law to address climate crimes? The problem of purpose is one that affects many areas of international law.[17] In earlier work, for example, I showed how attention to the purposes of international criminal law should encourage international prosecutors to change how they use the law of pillage to better account for more and different harms in

e.g., Grant Pink & Rob White, *Collaboration in Combating Environmental Crime—Making it Matter*, *in* ENVIRONMENTAL CRIME AND COLLABORATIVE STATE INTERVENTION 3-5 (Grant Pink et al. eds., 2016). These scholars have principally focused on the various ways that the law could address existing, discrete environmental harms. Its focus is typically narrower than that of green criminology.

[12] *See generally* Rob White, *Criminality and Climate Change*, 6 NATURE CLIMATE CHANGE 737 (2016) (surveying recent scholarship regarding the criminal aspects of many climate-harming activities). *See also* Payal Patel, *Expanding Past Genocide, Crimes Against Humanity and War Crimes: Can an ICC Policy Paper Expand the Court's Mandate to Prosecuting Environmental Crimes?,* 14 LOY. U. CHI. INT'L L. REV. 175, 182-189 (2016) (arguing that despite a new policy paper from the Office of the Prosecutor promising to give more weight to environmental that occur as part of other crimes, the ICC is not well suited to be a principal forum for addressing climate change).

[13] *See* Keenan, Ku & Scott, *Climate Change Court*, *supra* note 10 at 79-80 (addressing political impediments to the use of international criminal law institutions to address climate change); Patrick J. Keenan, *The Problem of Purpose in International Criminal Law*, 37 MICH. J. INT'L L. 421, 443-50 (2016) [hereinafter Keenan, *Problem of Purpose*] (discussing the problem of purpose in international criminal law as an obstacle to its application in various areas).

[14] *See, e.g.*, Keenan, Ku & Scott, *supra* note 10, at 79-80 (discussing that the United Nations Security Council's five permanent members could excuse themselves from the jurisdictional reach of a tribunal set up by the United Nations Security Council).

[15] *See id.*

[16] *See* Keenan, *Problem of Purpose*, *supra* note 13 at 443-50 (arguing that confusion as to the purposes of international criminal law and international criminal law institutions makes international criminal law less effective than it would be otherwise).

[17] *Id.* at 429 (demonstrating that doctrinally, international criminal law is "an amalgam of several distinct areas law").

many modern conflicts.[18] In this Article, I argue that attention to the purposes of international criminal law should shape how scholars and advocates think about the use of international criminal law to address climate crimes.

This Article contributes to debates about climate change and the appropriate legal responses by specifying the issues and how they can affect potential cases. I provide a blueprint of the kinds of hurdles that prosecutors and advocates may face and identify some ways to address these problems. The goal of this Article is not to provide definitive answers to every issue. International efforts to address climate change have so far implicated as many areas of policy and law as scholars have been able to identify.[19] The potential for the use of international criminal law as a means by which to address climate change has been the subject of increasing attention,[20] but there are significant impediments to using the criminal law in this way.[21] If international criminal law is to play a meaningful role in mitigating or preventing climate change, scholars and advocates must address these impediments.

What is the purpose of creating and pursuing climate crimes? The answer to this question should inform both how climate crimes are formulated and prosecuted and how policymakers assess whether the prosecution of climate crimes is effective. Put slightly differently, before policymakers can know if prosecuting climate crimes is worth the effort, they must know why they are undertaking prosecutions in the first place. There are several purposes that might support the creation of climate crimes. These purposes would suggest different points of emphasis for prosecutors. And perhaps more importantly, they would suggest different metrics for assessing whether the use of the criminal law is an effective strategy.

I identify several categories of problems with the use of criminal law to address climate change and its effects. In the first category are problems relating to the definition of crimes related to climate change. What are the boundaries of these crimes and how far should the law reach? Second, and related to the definitional problems, are those

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[18] *See* Patrick J. Keenan, *Conflict Minerals and the Law of Pillage*, 14 CHI. J. INT'L L. 524, 541-46 (2014) (proposing and defending a systematic theory of the crime of pillage as a way to better account for the variety of harms caused by the crime of pillage and to better fulfill the purposes of international criminal law).

[19] *See, e.g.*, Ruhl & Salzman, *supra* note 6, at 1010 (identifying six distinct fields of law implicated by legal question on the biophysical world – water law, land use law, agricultural law, insurance law, and property rights).

[20] *See generally*, White, *supra* note 12; Patel, *supra* note 12.

[21] *See, e.g.*, Keenan, Ku & Scott, *Climate Change Court*, *supra* note 10, at 79.

pertaining to attribution or causation. Climate change is caused by a myriad of reasons and produces a wide range of effects.[22] These causes and consequences are geographically and temporally diffuse and involve an assortment of actors.[23] Identifying who is responsible for what may prove to be an insurmountable task.[24] The third category includes those related to criminal procedure. Assuming there is a workable definition of climate crimes, would prosecutors be able to use it to address any past harms, or only those occurring after the crime was defined? How would evidence of crimes be assembled by prosecutors and confronted by those accused of wrongdoing, particularly in cases (likely most of them) involving evidence that touches more than one country? Where would be the appropriate forum and how would it obtain and assert jurisdiction over defendants? To be sure, some or all of these issues can arise in almost every complex criminal matter and the law has evolved means by which to address or manage them;[25] they are not necessarily insurmountable hurdles.[26] Nonetheless, these are particularly salient and vexing issues with respect to the use of the criminal law to address climate change.

I argue that if policymakers sought to deliberately harness the expressive potential of international criminal law, there is at least the potential for international criminal law to play a meaningful role in the fight against climate change. I argue that prosecutors should be guided in the exercise of their discretion to select and shape cases by paying attention to the signals that those decisions send. Doing so would demonstrate the wrongfulness of climate-harming conduct, especially the many small decisions that individuals make that contribute to climate harms.

My approach is intentionally modest. Some scholars and advocates

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[22] *See generally* Robert Agnew, *The Ordinary Acts that Contribute to Ecocide*, *in* ROUTLEDGE INTERNATIONAL HANDBOOK OF GREEN CRIMINOLOGY 58 (Nigel South & Avi Brisman eds., 2013).

[23] *Id.* (acknowledging that "contamination and destruction of the environment. . . [occurs through acts] that are widely and regularly performed by individuals as part of their routine activities.").

[24] *Id.* at 67 (elaborating why the "ordinary acts" that contribute to climate change are difficult to expose).

[25] *See generally*, White, *supra* note 12.

[26] *See, e.g.*, Linda Steg & Charles Vlek, *Encouraging Pro-Environmental Behavior: An Integrative Review and Research Agenda*, 29 J. ENVTL. PSYCH. 309, 309 (2009), (discussing the need to encourage behavior protective of the environment); Seth Wynes & Kimberly A. Nicholas, *The Climate Mitigation Gap: Education and Government Recommendations Miss the Most Effective Individual Actions*, 12 ENVTL. RES. LETTERS 1, 3-4.

propose to categorize climate crimes as a species of crimes against humanity,[27] or as a method of committing genocide.[28] Others propose to place ecocide (or something akin to it) on the same plane as these core international crimes.[29] These approaches may well garner international attention, but are not likely to actually affect individual attitudes about one's own behavior. Most people do not see any connection between themselves and someone accused of genocide or crimes against humanity. Placing climate crimes on this plane, or charging them as a species of one of those crimes, would further distance individual choices from climate harms. It would allow individuals to exonerate their own behaviors even as they condemn the behaviors of others. It would symbolically declare that climate crimes are only those crimes committed by people or institutions that are morally equivalent to the people who committed the genocide in Rwanda or organized the Holocaust. Those individuals and their actions are already condemned, even if future perpetrators are not entirely deterred. Instead, a more effective approach would be to label as wrongful the myriad of small actions that individuals undertake every day that, when taken together, contribute to climate change. This approach is far less dramatic than other options, but more likely to change attitudes. What is necessary is to affect the attitudes of people who believe that their individual contributions to climate harms are so trivial as to be unimportant. Restricting the use of climate harms to cases on the same scale as genocide or crimes against humanity would serve to undermine this goal.[30]

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[27] *See, e.g.*, Mark Byrne, *Climate Crime: Can Responsibility for Climate Change Damage be Criminalised?*, 3 CARBON & CLIMATE L. REV. 278, 279-82 (2010) (discussing the avenues through which claims of international criminal responsibility for environmental damage may be prosecuted in the future).

[28] HIGGINS, ERADICATING ECOCIDE, *supra* note 11, at 61-71 (arguing for ecocide to be the fifth crime against peace).

[29] Byrne, *supra* note 27, at 281 (arguing that climate change damage could be recognized as a *jus cogens* or peremptory norm alongside genocide).

[30] My approach builds on and operationalizes an argument that has been advanced in the green criminology literature, discussed more fully below. Sociologist Robert Agnew has argued that law and policy have inadequately accounted for the many "ordinary acts that contribute to . . . the contamination and destruction of the natural environment." Agnew, *supra* note 22, at 58. Agnew argues that it is the ordinary acts that individuals engage in that provide the incentives for wider-scale destructive practices, such as the use of coal power and deforestation. *Id.* at 59. For my purposes, what matters is Agnew's work in drawing attention to the ordinary behaviors that themselves give rise to more destructive behavior. Agnew takes up the challenge of explaining why individuals engage in these behaviors, an issue that is beyond the scope of my argument. *Id.* at 60-68.

One useful (albeit imperfect) analogy for my approach is hate crime legislation in the United States.[31] Under these statutes, conduct that is otherwise criminal can be subject to prosecution as a more serious crime or punished more severely if prosecutors can prove that the defendant was motivated to act by racial or some other specified prejudice.[32] The extensive scholarly literature debating these statutes is beyond the scope of this Article. What is relevant is the way the statutes operate. These provisions allow prosecutors to treat more harshly conduct that was already criminal because it causes an additional, separate harm—that produced by the hateful or biased motivation.[33] To be sure, there are other theoretical bases advanced in support of these laws, but the separate harm argument is most salient here. As with hate crimes legislation, I propose something like climate crimes: when prosecutors are facing conduct that is already criminal, they should consider the climate-harming effects of that behavior. Climate harms are different from the harms already addressed by the statutes and would justify different treatment. I argue that policymakers should deliberately harness the expressivist potential of international criminal law to address climate crimes. By so doing, prosecutors could use the public power of criminal law to affect both undesirable behaviors and the attitudes that underlie those behaviors. Attention to the expressive potential of criminal law should guide prosecutors in the exercise of their discretion. If, for example, prosecutors were weighing how to deploy scarce resources to address harmful conduct, evidence that the conduct was climate-harming should weigh in favor of prosecution.

One purpose of using international criminal law to address climate change might be to demonstrate that there are identifiable wrongdoers whose actions have contributed to climate change. This approach would rely on the expressive value of the law to mark as wrongful behavior that has been widespread or socially acceptable, and to attempt to deliberately change norms of behavior that may be firmly established.[34] It is certainly not a new idea that the content of

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[31] *See, e.g.*, Violent Crime Control and Law Enforcement Act of 1994, Pub. L. No. 103-322, § 280003, 108 Stat. 1796, 2096.

[32] *See id.*

[33] Laura Meli, *Hate Crime and Punishment: Why Typical Punishment Does Not Fit the Crime*, 2014 U. ILL. L. REV. 921, 943 (2014) (exploring justifications for the greater punishments assigned to hate crimes).

[34] For a more complete treatment of this issue, *see* Keenan, *Problem of Purpose*, *supra* note 13, at 461-66. There, by reference to actual cases from Rwanda and Sierra Leone, I showed how prosecutors could use their discretion to shape cases to address additional harms and better harness the power of the law to express

legislation can have the effect of signaling to the public that some behaviors are disfavored, or that some behaviors are desirable.[35] Although it is difficult to calibrate with any precision, scholars have identified some factors that might help determine when the prosecution of a particular crime has the effect of demonstrating that the underlying conduct is wrongful.[36] Richard McAdams has developed the most coherent approach for understanding when the prosecution of a crime expresses condemnation of the underlying acts.[37] McAdams identifies three conditions under which the prosecution of a particular crime might plausibly signal a particular attitude.[38] The first is that "the enforcement action carries some clear audience message."[39] This means that those receiving the message can easily infer its meaning.[40] Next, the message must be publicized.[41] That is, many people must receive the message and understand its meaning.[42] Finally, McAdams argues that for a signal to affect the recipient's beliefs, there must be something about the signal that makes it particularly salient.[43] He argues that there must be something that magnifies "the informational content of the legal signal."[44]

A different purpose might be to calibrate as finely as possible who contributed to climate change and how much each participant contributed, with the consequences tied to each participant's wrongdoing.[45] Such a desert-based theory would accept punishment only for the harms that each potential defendant caused, and would

condemnation for unwanted behavior. *Id*. at 464-66.

[35] *See, e.g.*, Matthew D. Adler, *Expressive Theories of Law: A Skeptical Overview*, 148 U. PA. L. REV. 1363, 1448-1450 (2000) (reviewing literature on expressive theories of regulation).

[36] RICHARD MCADAMS, THE EXPRESSIVE POWERS OF LAW: THEORIES AND LIMITS 136 (2015) (summarizing the dynamic as follows: "law provides information; information changes beliefs; new beliefs change behavior").

[37] *Id.* at 176-79.

[38] *Id.* at 180 (identifying a clear implication, publicity, and expertise as "three conditions for an enforcement decision to change beliefs").

[39] *Id.* at 179.

[40] *See id.* at 174-75.

[41] *Id.* at 179.

[42] *Id.*

[43] *Id.* at 180.

[44] *Id.*

[45] *See generally* MICHAEL MOORE, PLACING BLAME: A GENERAL THEORY OF THE CRIMINAL LAW 153-188 (1997) (arguing that desert is the only legitimation justification for punishment of offenders by the state).

require that this calculation be individuated.[46] To be sure, this calculus would be almost infinitely complicated with climate crimes and might be difficult to implement in practice.[47] The law has developed tools to assess culpability when there are multiple wrongdoers responsible for a single crime,[48] but doing so in the case of harms as widespread as those that have caused climate change might be impossibly complex.

This standard applies to the required mental elements discussed above as well as the defendant's substantive actions or omissions.[49] Prosecutors would be required to show that the defendant committed the acts with the knowledge that doing so would cause harm, damage lives, or a similar outcome.[50] In many cases it would be difficult for prosecutors to show that the defendants even knew with any certainty what the outcome of their actions would be; in decades past it was not obvious that the actions and policies that have produced climate change would affect the environment in such a way.[51] Prosecutors would find it close to impossible to establish the mental element of most climate crimes.[52]

The objective of pursuing climate crimes should be to use the authority of the state and the criminal law to condemn the wrongfulness of the underlying conduct. The goal should be to address attitudes about the connections between climate change and

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[46] *See id.* at 79 (arguing that the state is justified in punishing only to the extent that the individual offender deserves the punishment).

[47] For a more complete analysis of these issue as they pertain to international criminal law, *see* Andrew K. Woods, *Moral Judgments and International Crimes: The Disutility of Desert*, 52 VA. J. INT'L L. 633, 638 (2012) (arguing that desert is both the justification for the imposition of international criminal law and the best way to serve the many policy goals of international criminal law).

[48] *See* LARRY ALEXANDER & KIMBERLY K. FERZAN, CRIME AND CULPABILITY: A THEORY OF CRIMINAL LAW 180-81 (2009) (describing the problem of alternative causation).

[49] *See generally id.* at 41-65.

[50] *Cf.* Bobby Yu, *Criminal Ambiguity: Redefining the Clean Water Act's Mens Rea Requirements*, 11 SETON HALL CIR. REV. 327, 327-38 (2015) (discussing the indeterminacy of the mens rea requirement for public welfare offenses, focusing on Clean Water Act crimes).

[51] *See* Hervé Le Treut et al., *Historical Overview of Climate Change*, in CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS. CONTRIBUTION OF WORKING GROUP 1 TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 94, 98 (Alphonsus Baede et al. eds., 2007), https://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-chapter1.pdf [https://perma.cc/N7S8-JUQG] (explaining the cumulative development of climate change science).

[52] Yu, *supra* note 50, at 348 (stating the difficulty of proving intent as the biggest obstacle in the prosecution of crimes under the Clean Water Act).

behaviors. In making this argument, I assume that any punishment imposed for climate crimes must be deserved, in the sense that it would satisfy a desert-based theory. Thus, desert functions as a threshold requirement.[53] The approach I advocate for would rely on an expressivist approach to the criminal law for the selection and shaping of criminal cases. Prosecution of climate crimes has the potential to publicly set the boundaries of acceptable behavior and the responsibilities that businesses and individuals owe to this and future generations.

II. HARNESSING THE POWER OF EXPRESSIVISM

International criminal law scholars and advocates devote significant attention to the purposes of international criminal law,[54] and to the purpose of any particular prosecution or tribunal.[55] Notwithstanding, there is no consensus on what the appropriate purposes of international criminal law might be, and little consensus on what they even mean by the term *purposes*.[56] Scholars and advocates typically mean to capture one of three ideas when discussing purposes: motivations,[57] justifications,[58] and objectives.[59] By motivations I mean

[53] In this way, my approach builds on the work of Paul Robinson, among others, who have proposed various prerequisites that must be true before punishment is justified. *See* Paul H. Robinson, *A Theory of Justification: Societal Harm as a Prerequisite for Criminal Liability*, 23 UCLA L. REV. 266, 292 (1975) (arguing that "harm is a prerequisite to criminal liability" but not a sufficient justification). For Robinson, societal harm is a necessary threshold for criminal punishment to be available. Once this threshold is met, then other factors become relevant in whether and how the criminal process handles the case and the defendant. Similarly, I argue that moral desert is a prerequisite necessary to justify punishment, but that other factors—among them, contributions to climate harms—are relevant to whether and how international criminal law should handle the case.

[54] Keenan, *Problem of Purpose*, *supra* note 13, at 444-45 (discussing the various ways in which scholars and advocates have defined the purposes of international criminal law).

[55] *See, e.g.*, *id.* at 448 (arguing that the "purpose" language used around the creation of a tribunals mostly serves to satisfy legal and political requirements).

[56] Throughout this part I draw on my previous work, which focused directly on the issue of purpose. *See generally* Keenan, *Problem of Purpose*, *supra* note 13.

[57] *See generally id.* at 445-448 (explaining the motivation-as-purpose theory of international criminal law).

[58] *See generally id.* at 448-50 (discussing the theories of retribution and deterrence as potential purposes of international criminal litigation).

[59] *See id.* at 450 (distinguishing an objectives-oriented approach to the purpose of international law as one that focuses on the consequences arising from the operation of the tribunal).

the subjective—usually political—considerations that prompted the creation of the international criminal tribunal in the first place.[60] These motivations might be a desire to end violence in a particular place or help to facilitate a peaceful transition.[61] When scholars and advocates discuss purposes in this sense, they are describing the reasons given by those promoting the creation of a criminal tribunal or those arguing in favor of bringing international criminal charges to address specific harms.[62] On this account, international criminal law is a tool of international relations, to be used when necessary to further strategic, political, or similar goals.[63] The mere fact of a prosecution or the creation of a tribunal can be sufficient to fulfill this sense of purposes; the details of how the tribunal operates are not of primary importance.[64]

Other scholars use the term purposes to mean the justifications for criminal sanctions.[65] Many of these justifications are familiar to criminal law scholars, including deterrence, incapacitation, and rehabilitation.[66] In this sense, purposes are those reasons that support the imposition of criminal sanctions or the deployment of the state law enforcement apparatus.[67] In the main, this sense of purposes is

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[60] *Id.* at 445-447 (surveying the motivations behind the creation of international criminal tribunals).

[61] *Id.* at 422 ("International criminal tribunals have quickly become part of the landscape of conflict resolution and transitions from a period of oppression to peace and stability.").

[62] *Id.* at 425 (listing examples of such motivations as "a wish to end an armed conflict, to mollify a recalcitrant party during complex peace negotiations, or even the unstated goal of assuaging the guilt felt by those who knew of a humanitarian crisis and did nothing to prevent or shorten it").

[63] *See generally* Alexander K. A. Greenawalt, *Justice Without Politics? Prosecutorial Discretion and the International Criminal Court*, 39 N.Y.U. J. INT'L L. & POL. 583 (2007) (arguing that the exercise of prosecutorial discretion is an aspect of the many political decisions that affect the use of international criminal law to address conflicts and hold individuals accountable for harms).

[64] Keenan, *Problem of Purpose*, *supra* note 13, at 448 ("[M]otivations for the creation of an international criminal tribunal are largely satisfied when the tribunal is created.").

[65] *See generally id.* at 449 (surveying the arguments for different justifications as the purpose of international criminal prosecution).

[66] *See, e.g.*, Albert W. Alschuler, *The Changing Purposes of Criminal Punishment: A Retrospective on the Past Century and Some Thoughts about the Next*, 70 U. CHI. L. REV. 1, 1 (2003) (noting the traditional "purposes of criminal punishment—retribution, deterrence, incapacitation, and rehabilitation").

[67] *See* MOORE, *supra* note 45, at 84 (analyzing the "prima facie reasons given to justify the institution of punishment").

concerned with whether a punishment is morally justified.[68] This theory does not determine with any precision how prosecutors should choose from among a number of crimes when the offenders are equally morally blameworthy, or whose prosecution would provide an equal measure of deterrence.[69]

The final sense of the term purposes has to do with the social or policy objectives that policy makers hope to accomplish through the use of international criminal law.[70] On this approach, the purposes of international criminal law are those social goals that will be promoted by the prosecution of certain offenses or offenders.[71] It is these policy objectives that are at the heart of my argument.

A. A Theory of Behavioral Change

The goal of law and law enforcement is to cause people or institutions to change their conduct, either by doing more of something desirable or less of something undesirable.[72] The focus of the criminal law is to prevent injuries and hold individuals to account for the harms they cause.[73] One of the most important problems with the harms attendant to climate change is that there are so many specific behaviors that a reasonable policymaker may wish to change.[74] She may wish, for example, to encourage citizens to change purchasing decisions in the first instance instead of relying on recycling to reduce

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[68] *See generally* Woods, *supra* note 47, at 633.

[69] *See, e.g.*, Allison Marston Danner, *Enhancing the Legitimacy and Accountability of Prosecutorial Discretion at the International Criminal Court*, 97 AM. J. INT'L L. 510, 542-546 (2003) (describing the various considerations that prosecutors must account for in deciding which of the many otherwise deserving cases to pursue in international criminal tribunals).

[70] Mirjan Damaška, *What is the Point of International Criminal Justice?*, 83 CHI.-KENT L. REV. 329, 347 (2008) (arguing that "the central mission of international criminal courts should be the socio-pedagogical one of strengthening the public sense of accountability for human rights violations").

[71] I developed this argument in earlier work. *See* Keenan, *Problem of Purpose*, *supra* note 13, at 450 (arguing that the appropriate "purpose" of international criminal law and its institutions are those beneficial "consequences that might result from the operation" of the law and institutions).

[72] *See* WAYNE R. LAFAVE, CRIMINAL LAW 31 (6th ed. 2017).

[73] *See id.* at 14-15 (arguing that the "broad aim of the criminal law is . . . to prevent harm to society[;] . . . to the health, safety, morals and welfare of the public" by "punishing those who have done harm, and by threatening with punishment those who would do harm").

[74] *See, e.g.*, Wynes & Nicholas, *supra* note 26, at 3-6 (analyzing more than two dozen actions recommended to citizens as ways to reduce climate harms and identifying the most effective actions from among them).

the environmental impact of certain products.[75] She may also wish to discourage the use of cosmetics containing microbeads—solid plastic particles that do not dissolve in water and harm the ecosystem—by taxing those products more heavily than similar products without microbeads.[76] The harms that might plausibly support the category of climate crimes are myriad, caused by thousands of decisions made by people all over the world.[77] To be clear, contributions to climate change have not been equally distributed; some industries and countries have contributed much more than others to the harms that are increasingly experienced by all.[78] Nonetheless, policymakers wishing to pursue a theory of climate crimes must identify those behaviors that are most important to target, and should do so in service of accomplishing real objectives. Stated differently, without identifying the objectives of pursuing climate crimes, it will be difficult to coherently define the crime or identify offenders.

Expressivism can offer a useful roadmap through these problems by demonstrating the shared responsibility for the harms that are causing climate change.[79] Prosecutorial decisions that attempt to highlight the role that individual decisions make in the creation of climate harms can do two things. First, they can show that even small contributions to harm are themselves wrongful. This makes it less likely that individuals or corporations will exonerate themselves by arguing that their behavior is similar to the behavior of many others. Climate change is caused by everyone.[80] When individuals or corporations look around—literally or figuratively—and see many others doing the same things they are doing, their belief that their individual contribution to climate change is either morally or scientifically insignificant is reinforced.[81] Prosecution can undermine

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[75] *See* Steg & Vlek, *supra* note 26, at 309-10 (describing relative effectiveness of changing purchasing decisions versus encouraging recycling).

[76] *See, e.g.*, Cheryl Corley, *Why Those Tiny Microbeads in Soap May Pose Problem for Great Lakes*, NAT'L PUB. RADIO (May 21, 2014), https://www.npr.org/2014/05/21/313157701/why-those-tiny-microbeads-in-soap-may-pose-problem-for-great-lakes [https://perma.cc/NK2C-XRNR] (describing the environmental impact of microbeads on the environment).

[77] *See* Agnew, *supra* note 22, at 58.

[78] *See generally* H. Damon Matthews et al., *National Contributions to Observed Global Warming*, 9 ENVTL. RES. LETTERS, Jan. 15, 2014, at 1 (2014) (analyzing the relative contribution of countries to historical climate warming and concluding that the United States has contributed much more than any other country).

[79] MCADAMS, *supra* note 36, at 22.

[80] *See Agnew*, *supra* note 22, at 67.

[81] *See id.* at 58, 64.

this self-justifying viewpoint and begin to change the beliefs or attitudes that encourage the underlying behavior.[82]

There is a second way that expressivism can be a useful guide for prosecutorial decisions. To date, international criminal law has played little role in addressing the most important contemporary issue. Basing prosecutorial decisions at least in part on the objective of addressing climate crimes is a way to reinforce the importance and relevance of international criminal law. Arguing that expressivism *can* guide prosecutorial decisions is, of course, just one important step in the argument. In the parts that follow, I argue that the conditions under which international criminal law is implemented are at least partially congenial to an expressivist approach.

B. The Conditions Under Which Expressivism Works Best

I argue that the use of prosecutorial powers to address the harms caused by climate crimes may affect personal or corporate behavior by signaling that individual harms are important.[83] This is, of course, a specific version of the general hope that many policymakers have: that using the criminal law in a particular way will cause there to be less of some unwanted behavior.[84] My argument is not, however, based in deterrence. Put generally, deterrence theorists argue that potential offenders base their decision to offend (at least in part) on their calculation as to the likelihood that their offense will be detected or that they will suffer a penalty if they are caught.[85] On this theory, among the influences on this calculus are the potential offender's observations of others: are people who engage in this kind of crime caught, and if so, are they punished severely?[86] If the potential offender observes that detection is likely or punishment is severe, he

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[82] *See, e.g.*, Elizabeth S. Anderson & Richard H. Pildes, *Expressive Theories of Law: A General Restatement*, 148 U. PA L. REV. 1503, 1567-68 (2000).

[83] MCADAMS, *supra* note 36, at 169-170.

[84] *See generally* Steven Shavell, *The Optimal Structure of Law Enforcement*, 36 J. L. & ECON. 255 (1993) (arguing that reductions in unwanted behavior can be brought about by the optimal deployment of criminal law sanctions and policies).

[85] *Id.* at 275.

[86] For a more complete explanation of this approach, the seminal work is perhaps that of Gary Becker. *See generally* Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968). He argued that deterrence operated as a sort of formula. *Id*. at 176. On one side are the benefits that committing the act would bring to the law-breaker. *Id*. On the other side are the costs of the crime, defined as a function of the probability of detection and the severity of the expected legal sanction. *Id.*

or she is less likely to commit the offense.[87]

In contrast to deterrence theorists, I do not argue that the arrest or prosecution of some individuals will deter climate-harming behavior in general by demonstrating to potential offenders that they are likely to be caught, or that the punishment for their misbehavior is likely to be costlier than they had anticipated. Instead, I argue that as individuals or corporations observe the use of state resources to prosecute climate crimes, their attitudes shift about the underlying conduct and their individual role in it.[88] Instead of believing that their individual contribution to climate harms is so small as to be meaningless, or so common as to be blameless, they may come to see that their individual contributions matter.[89] To be sure, this may result in deterrence of a sort because the unwanted activity may decrease,[90] but the most plausible causal mechanism is not that potential offenders believe that they are likely to be caught or severely punished.[91] The behaviors that contribute to climate harms are so widespread that most individuals and corporations will surely realize that they are unlikely to face individual prosecution.[92] It is only through a shift in attitudes that behavioral change is likely.

Scholars have long debated whether prosecutorial decisions can signal to the public that some behavior is desirable or undesirable.[93] Richard McAdams has argued that there are certain conditions under which this is more likely to occur.[94] McAdams argues that there are three conditions under which prosecutorial decisions may signal to the public—or some subset of it—that a particular behavior is desirable or undesirable. First, according to McAdams, the enforcement action

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[87] *See* MCADAMS, *supra* note 36, at 169-170.

[88] *See, e.g.*, Anderson & Pildes, *supra* note 82, at 1508-1514 (describing the processes by which expressions of approval or disapproval affect individual actions).

[89] *See* Dennis Mares, *Criminalizing Ecological Harm: Crimes Against Carrying Capacity and the Criminalization of Eco-Sinners*, 18 CRITICAL CRIMINOLOGY 279, 289-291 (2010) (describing the process by which policymakers could address climate-harming behavior through shaming sanctions). Mares argues that that the most effective way to change behaviors is to change the attitudes that individuals hold about those behaviors. He argues that policymakers should "emphasize both collective and individual responsibility for our actions" by using a "shaming approach" to "underline their negative impact." *Id.* at 289.

[90] *See* MCADAMS, *supra* note 36, at 175.

[91] *See generally* MCADAMS, *supra* note 36.

[92] Agnew, *supra* note 22, at 58, 68.

[93] *See* Keenan, *supra* note 13, at 463.

[94] *See id.* (analyzing McAdams's approach in the context of international criminal law generally).

must convey some "clear audience message."[95] This means that the audience must understand what the prosecutorial decision or action means.[96] It must interpret the action as expressing disapprobation for the underlying conduct and not, for example, evidence that the prosecutor is unfair. Second, McAdams argues that the signal—the prosecutorial action—must receive sufficient "publicity."[97] Decisions or actions undertaken in secret are unlikely to change attitudes.[98] Third and finally, McAdams argues that the action must be noticeable to the intended audience.[99] This means that there must be something about the action or the audience that makes this particular signal stand out from among the many other possible sources of information in people's lives.[100]

In addition to the conditions that McAdams identifies, at least two other conditions are important. The identity of the implementing institution will shape how the audience receives and interprets the signal.[101] If the prosecutorial institution is viewed as credible, then its decisions are more likely to be interpreted as trustworthy signals about norms or attitudes, and are therefore more likely to influence behavior.[102] Conversely, if the institution is viewed as unreliable, capricious, or inexpert, then its decisions will either not convey the message intended or may well undermine the message.[103] Finally—and perhaps most salient in the context of emerging crimes—the substantive rules about the way that the crime was defined and transparency about the way prosecutorial decisions were taken must be seen as credible.[104]

Before moving on, one important caveat is in order. I do not argue that the expressive value of prosecution or punishment is itself sufficient to justify the use of prosecutorial power against individuals

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[95] MCADAMS, *supra* note 36, at 179.

[96] *Id.*

[97] *Id.*

[98] *Id.*

[99] *Id.*

[100] *Id.*

[101] *See* Kenworthey Bilz & Janice Nadler, *Law, Moral Attitudes, and Behavioral Change*, *in* OXFORD HANDBOOK OF BEHAVIORAL ECONOMICS AND THE LAW 241, 246-247 (Eyal Zamir & Doron Teichman eds., 2014) (arguing that the legitimacy of legal institutions is an important factor in influencing attitudes and behavior).

[102] See *id.* at 246.

[103] *See id.* at 253-255 (describing the ways that the source of legal regulation, and the source's credibility with the salient audience, affects the expressive function of the law).

[104] *Id.* at 254.

or corporations. Instead, considerations of the expressive value of prosecution or punishment should be one of the factors that prosecutors rely on to select from among the many possible objects of their attention. Most prosecutors have a long list of potential wrongdoers to target and rely on some decisional criteria to determine whom to target. They may choose to target those wrongdoers whose behavior causes the most harm, or harms the most vulnerable victims, or affects those with political or social power. But I assume that no potential target will be on a prosecutor's long list unless that target is deserving of punishment. Desert theorists hold that punishment should be imposed only if and only to the extent that the offender, based on his or her conduct, deserves the punishment. No target should be under consideration unless the offender, at least by some calculus, deserves to be prosecuted or punished. The expressive considerations that I highlight should help prosecutors choose from among those who already deserve prosecution or punishment but whose cases might not otherwise be a priority.

III. CLIMATE CHANGE AND INTERNATIONAL CRIMINAL LAW

The evidence about climate change and the effects of humans on the natural world is overwhelming.[105] Climate change represents an existential threat to the planet,[106] and as such it is no surprise that

[105] It is beyond the scope of this Article to fully survey the evidence of climate change. There is a broad consensus among scientists that climate change is real, that human activity has contributed to it, and that absent significant steps to mitigate the problem, it will become more severe. Perhaps the most credible survey of the climate science is the Intergovernmental Panel on Climate Change, which operates under the auspices of the United Nations. The IPCC, in its most recent full report, warns that warming "of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen." Rajendra K. Pachauri et al., U.N. Env't Programme, and World Meteorological Org., *Climate Change 2014: Synthesis Report,* IPCC 2 (2014), https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf [https://perma.cc/64GW-7FT8]2014) [hereinafter *Climate Change Synthesis Report*]. The range of policies that should change to mitigate the effects of climate change is similarly complex. *See, e.g*., Will Steffen, *A Truly Complex and Diabolical Policy Problem*, *in* THE OXFORD HANDBOOK OF CLIMATE CHANGE 21, 21 (John S. Dryzek et al. eds., 2011) (surveying the various causes and consequences of climate change and their policy implications).

[106] *See, e.g*., *Climate Change Synthesis Report, supra* note 105, at 8 (stating that current emissions levels are "increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems"). There is also growing evidence that this these issues are of increasing importance to ordinary citizens. *See* Jacob Poushter

scholars and advocates are attempting to identify a role for international criminal law in response to it.[107] So far these attempts to use international criminal law have not borne fruit for a number of reasons. First, international criminal law—like criminal law more generally—is inevitably political. Policymakers struggle to reach consensus about which actions to criminalize and how to allocate scarce enforcement resources. With international criminal law there are additional complicating factors. The sanctions associated with criminal law violations differ in kind from those associated with other forms of regulations. Those who violate the criminal law can pay a fine or lose their liberty. Those who violate administrative regulations may be required to change their behavior, but a jail sentence is typically not a risk. In addition, criminal law responses typically have no phase-in period; if an individual is guilty of a crime, she is not typically given an opportunity to change her behavior instead of being prosecuted. If policymakers decide to use tax incentives or administrative law to change behavior, they can phase in the change over time in a way that reduces costs and allows for market-based solutions. Criminal law responses can be implemented slowly, to be sure, but eventually it applies in earnest and violators face inflexible penalties. Despite the failures so far, attempts to carve out a role for international criminal law continue.[108]

In this Part, I address three issues. First, I briefly discuss some of the causes and consequences of climate change. The goal of this is

& Dorothy Manevich, *Globally, People Point to ISIS and Climate Change as Leading Threats to Security*, PEW RESEARCH CENTER 2-3 (2017), http://www.pewglobal.org/wp-content/uploads/sites/2/2017/07/Pew-Research-Center_2017.07.13_Global-Threats_Full-Report.pdf [https://perma.cc/AUX8-64QS]) (finding, based on surveys of individuals in 38 countries, that "global climate change" was seen as the second most important threat to security").

[107] There have been a number of prominent scholars and advocates who have proposed ways to use criminal sanctions to address harms to the environment. For example, Mark Allan Gray has argued that causing harm to the environment, under specified conditions, should be an international crime because it amounts to a "breach of an *erga omnes* duty of care" to avoid or prevent serious harm to the environment. Mark Allan Gray, *The International Crime of Ecocide*, 26 CAL. W. INT'L L.J. 215, 270 (1996) [hereinafter Gray, *Ecocide*]. Polly Higgins has proposed a statute that would outlaw similar crimes, premised in part on the argument that the harms caused by deliberate or negligent environmental destruction are on a similar scale and are roughly morally equivalent to those harms associated with genocide, crimes against humanity, and other core international crimes. Higgins, *supra* note 11, at 261-263. For a more pessimistic view, *see* Byrne, *supra* note 27, at 279-282 (assessing the means and plausibility of prosecuting offenders for conduct that harms the environment).

[108] *See* Polly Higgins, Damien Short & Nigel South, *Protecting the Planet: A Proposal for a Law of Ecocide*, 59 CRIM. L. & SOC. CHANGE 251, 252 (2013).

not to provide a comprehensive overview of the science of climate change. Instead, it is to highlight a few of the causes and consequences of climate change in order to connect them to the larger argument about the role of international criminal law. Next, I argue that the phenomenon of climate change is a good fit with an expressivist approach to climate crimes. Most of the causes of climate change are the result of the many, small decisions that individuals and corporations make every day.[109] Attitudes about these behaviors are changing, but not quickly enough.[110] The use of international criminal law has the potential to affect attitudes and behavior by stigmatizing what have been, to date, common and accepted behaviors. International criminal law also has the potential to signal to individuals and corporations that even relatively minor decisions are socially and legally relevant. Finally, I address three doctrinal issues to show that there is the necessary legal space for the development of climate crimes and that an expressivist approach can help solve some doctrinal problems. I argue that the legality principle—the rule that individuals may be punished only for activity that was defined as unlawful and subject to individual criminal prosecution at the time it occurred – is not a bar to the prosecution of climate crimes, even if the definition of those crimes is novel. I also argue that it is possible to define a climate crime with sufficient specificity to satisfy the requirements of due process, and that there are ways to address the thorny evidence problems that may arise.

A. Causes, Consequences, and Attribution

Even though the effects of climate change are widespread and felt virtually everywhere, it is still worthwhile to describe them in detail at least briefly. There is now at least a rough consensus among scientists of the major consequences of climate change.[111] Scientists have observed changes in water systems around the globe. Permafrost is thawing, glaciers are shrinking, and freshwater resources are

[109] Wynes & Nicholas, *supra* note 26, at 3.

[110] *See generally* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, GLOBAL WARMING OF 1.5 C: SUMMARY FOR POLICYMAKERS (2018), http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf . .

[111] For a survey of changes in the scientific consensus about climate change and climate science, *see generally* JANE LEGGETT, CONG. RESEARCH SERV., R45086, EVOLVING ASSESSMENTS OF HUMAN AND NATURAL CONTRIBUTIONS TO CLIMATE CHANGE 1 (2018). After surveying the evolution of scientific assessments of climate change, Leggett concludes that "current climate scientific assessment states high confidence (extremely likely) that human influence is the dominant cause of the observed warming over the past half-century." *Id.* at 6.

declining.[112] Non-human animals—whether living in the water, on land, or in the air—have seen their habitats and food sources challenged and their mating and migration patterns disrupted.[113] Crop production has been affected, mostly for the worse.[114] Scientists are beginning to observe health-related consequences in humans and non-human species, including more deaths caused by extreme heat.[115] The main cause of these harms is the warming of the earth caused by gasses trapped in the atmosphere, which trap heat and prevent it from radiating back into space.[116] This process is accelerating due to human activity that releases more harmful gasses.[117] Among the reasons for this are the use of fossil fuels like coal, oil, and gas, which produce carbon dioxide.[118] Other causes include deforestation, which reduces the number of trees available to absorb carbon dioxide from the atmosphere, and the use of certain fertilizers and gasses that contribute to the greenhouse effect.[119]

What even this brief and general overview shows is that climate change is caused by a host of activities that, taken together, have produced the worst consequences. It is impossible to link any one specific action—such as the decision to drive a car or use aerosols—to any one specific consequence.[120] The effects of climate change have accumulated over time, even as human activities have changed.[121] It is, of course, possible to identify major causes such as

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[112] Christopher B. Field et al.,, *Climate Change 2014: Impacts, Adaptation, and Vulnerability (Summary for Policy Makers)*, IPCC 1, 4 (2014), https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgII_spm_en.pdf [https://perma.cc/5ZCL-SELV].

[113] *Id.* at 4.

[114] *Id.* at 4-6.

[115] *Id.* at 6.

[116] LEGGETT, *supra* note 111, at 3, 6.

[117] *Id.*

[118] DONALD J. WUEBBLES ET AL., U.S. GLOBAL CHANGE RESEARCH PROGRAM, CLIMATE SCIENCE SPECIAL REPORT: FOURTH NATIONAL CLIMATE ASSESSMENT 80-81 (2017) ("CO2 emission sources have grown in the industrial era primarily from fossil fuel combustion (that is, coal, gas, and oil), cement manufacturing, and land-use change from activities such as deforestation").

[119] *See, e.g.*, *Causes of Climate Change*, EUROPEAN COMMISSION, EUROPEAN COMMISSION, , https://ec.europa.eu/clima/change/causes_en [https://perma.cc/AM4B-M5CV] (last visited Sept. 12, 2018).

[120] For an analysis of the many drivers of climate change and how individuals' choices contribute to it, *see* Wynes & Nicholas, *supra* note 26, at 2-5 (surveying the ways that individual choices can contribute to or mitigate the effects of climate change).

[121] *See, e.g.*, DOW & DOWNING, ATLAS OF CLIMATE CHANGE 45 (University of

the use of gas-burning cars or coal-fired power plants.[122] But it is not possible to link these to specific harms or to identify single individuals who are responsible for their use.[123] Criminal law is typically premised on just this sort of specific linkage: an identifiable offender took some specified action and harmed an identifiable victim.[124] The lack of identifiable harms and perpetrators present a problem for those scholars and advocates who argue that the criminal law should be used to address climate change.[125] My approach can help to address this problem - my objectives are more modest. I do not argue that any individual should be prosecuted for "causing" climate change.[126] Instead, I argue that climate crimes can be an auxiliary charge against those already suspected of causing other harms, and that such charges should target specific failures with demonstrable effects. Thus, the objective is to demonstrate that individual decisions, even small ones, matter, not to hold one or more persons responsible for all of climate change.

B. Expressivism and the Problem of Climate Change

Although the category of climate crimes is itself novel, there is ample doctrinal space for prosecutors to bring cases. There are three principal questions that merit consideration in this context. First, how can the criminal law evolve in new directions without violating principles that protect potential defendants from having to defend conduct that they did not know was unlawful? Second, is it possible to arrive at a definition of illegal conduct that is sufficiently specific to satisfy international criminal law requirements but still flexible enough to permit application to a range of conduct? Finally, how can prosecutors assemble the necessary evidence to satisfy the standard of proof in international criminal law? These are difficult questions for any international crime, and perhaps even more so for climate crimes. Nonetheless, existing doctrine provides sufficient latitude for careful prosecutors to charge climate crimes without running afoul of

California Press ed. 2011) (documenting the persistent nature of climate harms by showing that "the legacy of greenhouse gases—some remain in the atmosphere for centuries—guarantees the inevitability of climate change for decades to come").

[122] *Id.*

[123] Polly Higgins, the principal proponent of criminalizing ecocide, attempts to solve this problem by arguing that ecocide should be a strict liability crime. *See* HIGGINS, *supra* note 11, at 68-69.

[124] *See* Keenan, Ku & Scott, *supra* note 10, at 71.

[125] *Id.* at 69.

[126] For an overview of some of the most extreme calls for prosecution, *see* Byrne, *supra* note 27, at 278-279.

important protections for defendants.[127]

One of the most difficult issues in international criminal law is how to address harmful conduct that does not cleanly fit into existing doctrinal categories. International criminal law is criminal law, with all of the accompanying protections for criminal defendants that exist in most developed legal systems.[128] To address these considerations, international criminal tribunals have long applied the legality principle—or the maxim *nullum crimen sine lege*—to ensure that defendants are criminally liable only for conduct that was criminal at the time the events occurred.[129] The legality principle provides that prosecutors can bring charges only if, when the underlying harmful conduct occurred, the activity for which the defendant is being prosecuted was defined as unlawful and if persons who engaged in that conduct were subject to individual criminal prosecution.[130] At its core, this principle means that prosecutors may not surprise defendants by changing the law and then prosecuting individuals for conduct that they had every reason to believe was lawful at the time they engaged in it.[131] This principle exists alongside an important countervailing consideration: international criminal law must evolve to permit prosecutors to reach outrageous conduct that was not imagined by policymakers or conduct that was permitted because of political or legal dysfunction.

The most prominent case from modern international criminal law to address this issue comes from the Special Court for Sierra Leone.[132] In that case, *Prosecutor v. Brima*, prosecutors brought novel charges that nevertheless withstood challenge under the legality principle.[133] For the first time, prosecutors sought to charge defendants with the crime of forced marriage, separate from the crimes of rape,

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[127] In an earlier work I addressed some of the same considerations. For a fuller exploration of these issues, *see* Keenan, Ku & Scott, *supra* note 10, at 69-72.

[128] *Id.* at 69.

[129] *Id.* at 858. *See* Shahram Dana, *Beyond Retroactivity to Realizing Justice: A Theory on the Principle of Legality in International Criminal Law Sentencing*, 99 J. CRIM. L. & CRIMINALITY 857, 858 (2009) (arguing that the legality principle "safeguards the principle of fair notice").

[130] *See* STEVEN R. RATNER ET AL., ACCOUNTABILITY FOR HUMAN RIGHTS ATROCITIES IN INTERNATIONAL LAW 23-24 (3rd ed. 2009) (describing the legality principle and its requirements).

[131] *See* Dana, *supra* note 129, at 862 (arguing that the legality principle "safeguards the principle of fair notice").

[132] Prosecutor v. Brima (Feb. 22, 2008) (SCSL-2004-16-A).

[133] *Id.* at 66.

kidnapping, or sexual violence.[134] Prosecutors argued, and ultimately proved, that the harms stemming from forced marriage were distinct from the harms caused by the other crimes.[135] This was found to be true even if many of the physical acts were similar or even identical.[136] The victims of forced marriage were held against their will, as with kidnapping; subjected to forced sexual contact, as with rape; and they were forced to perform other tasks, as with slavery or similar crimes.[137]

In the face of the novel charge of forced marriage, the defendants argued that a conviction would violate the legality principle.[138] The Special Court for Sierra Leone ruled against the defendants, and in so doing provided a blueprint for prosecutors seeking to apply novel charges to harmful conduct.[139] The SCSL reasoned that each of the component parts of the crime of forced marriage, including holding the victim against her will, forced sexual contact, forced labor, and other elements, were already illegal.[140] Anyone who committed these offenses could be subject to prosecution in the courts of Sierra Leone or in an international criminal tribunal (assuming other elements were satisfied).[141] The SCSL found that even though the specific configuration of elements had not been used before, the defendants were nonetheless on notice that their actions could subject them to

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[134] *See generally "We'll Kill You if You Cry": Sexual Violence in the Sierra Leone Conflict*, HUMAN RIGHTS WATCH (Jan. 2003), https://www.hrw.org/reports/2003/sierraleone/ [https://perma.cc/3H8R-T8AH] (describing the incidence of rape, sexual violence, and other violent harms inflicted upon women in girls during the conflict in Sierra Leone).

[135] *See* Judgment at 22, Prosecutor v. Brima, Case No. SCSL-04-16-T, (Special Court for Sierra Leone June 20, 2007) (noting that the prosecutor amended the indictment to add a charged of "forced marriage" in the category of other inhumane acts as a crime against humanity).

[136] *See id.* at 310-12 (summarizing testimony of expert witness regarding the harms associated with forced marriage).

[137] *See* Micaela Frulli, *Advancing International Criminal Law: The Special Court for Sierra Leone Recognizes Forced Marriage as a "New" Crime Against Humanity*, 6 J. INT'L CRIM. JUSTICE 1033, 1036-37 (2008) (showing that the prosecutor charged and the tribunal accepted the crime of forced marriage because the other avenues of prosecuting sexual violence did not fully capture the specific harms attendant to forced marriage).

[138] Judgment at 217, Prosecutor v. Brima (June 20, 2007) (SCSL-04-16-T).

[139] *See* Judgment at 66, Prosecutor v. Brima (Feb. 22, 2008) (SCSL-2004-16-A).

[140] *See* Judgment at 22, Prosecutor v. Brima, (June 20, 2007) (SCSL-04-16-T) (noting that the prosecutor amended the indictment to add a charged of "forced marriage" in the category of other inhumane acts as a crime against humanity).

[141] *See* Judgment at 66, Prosecutor v. Brima, (Feb. 22, 2008) (SCSL-2004-16-A).

prosecution.[142] The defendants knew that their actions were illegal and that they could be prosecuted for them.[143] Thus, even if prosecutors had rearranged the elements into a new configuration, because every piece was already illegal, there was no violation of the legality principle.[144]

Prosecutors wishing to address climate crimes would be required to do something similar to satisfy the legality principle, and would likely face a greater challenge than that faced by prosecutors in the SCSL case. Here it is helpful to recall that the legality principle analysis is a two-stage inquiry.[145] One part asks if the substantive conduct was unlawful, and the other asks whether those who engaged in the unlawful conduct were subject to individual criminal prosecution.[146] Prosecutors will have an easier time satisfying the first question than the second. There is a substantial and growing number of cases from many legal systems that raise the issue of climate change and attempt to show that actions that produced harmful effects were unlawful.[147] These cases attack a wide range of harmful behavior, but what unites them is that they show (or attempt to show) that the underlying conduct was unlawful. To be clear, I do not argue that the law is so clear that a defendant facing such charges would simply concede the issue; it will surely be contested and subject to argument. However, prosecutors would be standing on relatively firm ground on this issue.

Prosecutors will find it more difficult to demonstrate that individuals who engaged in the underlying behavior were subject to individual criminal prosecution. It is here that the example from the SCSL is likely to be most helpful. To see why, it is helpful to consider in some detail

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[142] *See id.* at 64-66 (holding that the defendants knew that their actions produced specific, prohibited harms and could lead to prosecution).

[143] See *id.* at 66.

[144] *See id.* at 64-66.

[145] *See* Shahram Dana, *Beyond Retroactivity to Realizing Justice: A Theory on the Principle of Legality in International Criminal Law Sentencing*, 99 J. CRIM. L. & CRIMINALITY 857, 858-59 (2009).

[146] *Id.*

[147] *See generally* Hari Osofsky, *The Continuing Importance of Climate Change Litigation*, 1 CLIMATE L. 3, 4 (2010) (analyzing the various ways that climate change litigation in domestic courts is affecting transnational attempts to address climate change); Hari Osofsky & Jacqueline Peel, *The Role of Litigation in Multilevel Climate Change Governance: Possibilities for a Lower Carbon Future?*, 30 ENVIRONMENTAL & PLANNING L.J. 303, 304 (2013) (comparing the ways that Australia and the United States have addressed climate change in litigation and regulatory processes); Brian J. Preston, *The Influence of Climate Change Litigation on Governments and the Private Sector*, 2 CLIMATE L. 485, 485-86 (2011) (surveying the influence of domestic climate change litigation on decision makers from the legislative and executive branches).

a plausible definition of climate crimes. One leading advocate has proposed the following:

> "[T]he intentional destruction, in whole or in part, of any portion of the global ecosystem, via killing members of a species; causing serious bodily or mental harm to members of the species; inflicting on the species conditions of life that bring about its physical destruction in whole or in part; and imposing measures that prevent births within the group or lead to birth defects."[148]

What is noteworthy for purposes of the legality principle is that the substantive activities that would produce these effects are themselves already criminal—and thus subject to individual criminal prosecution. It is already possible to prosecute individuals for killing or injuring members of a non-human species, engaging in actions that destroy the habitat of non-human animals, and the like. Here there is a direct parallel to the SCSL case: because the component parts of the "novel" crime are separately unlawful and subject to individual criminal prosecution, the amalgam made from these parts is likely to satisfy the legality principle.

The second doctrinal issue that proponents of climate crimes must face is how to define a crime with sufficient specificity to satisfy the requirements of international criminal law but still leave room for prosecutors to apply it to a range of substantive activity. There is no shortage of proposals for how to criminalize the activities that contribute to climate change.[149] The first proposal appears to have come from, Dr. Arthur Galston, a biologist at Yale.[150] Dr. Galston's focus was on the defoliants used in the Vietnam War and was part of a small movement to focus attention on the environmental consequences of armed conflict.[151] Other proposed ecocide as a kind of war crime, premised on the argument that methods or tactics that caused widespread environmental harm involved the use of more force than necessary to achieve the desired military objectives.[152]

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[148] Lynn Berat, *Defending the Right to a Healthy Environment: Toward a Crime of Geocide in International Law*, 11 B.U. INT'L L. J. 327, 343 (1993).

[149] *See, e.g.*, Polly Higgins, *Ecocide Directive*, ERADICATING ECOCIDE, http://eradicatingecocide.com/the-law/ecocide-directive/ (last visited Sep. 15, 2018).

[150] *. . . And a Plea to Ban 'Ecocide,'* N.Y. TIMES (Feb. 26 1970), https://www.nytimes.com/1970/02/26/archives/and-a-plea-to-ban-ecocide.html. [https://perma.cc/6FJQ-DNBW]

[151] *See id.*

[152] *See* Richard A. Falk, *Environmental Warfare and Ecocide – Facts, Appraisal, and Proposals*, 9 Rev. BDI 1, 4-5 (1973).

In recent years scholars and advocates have focused their efforts on creating a definition that would put climate crimes on an equal footing with other international crimes.[153] A full survey of these efforts is beyond the scope of this Article, but it is worthwhile to identify at least some of the common features as a way of understanding their flaws, and, importantly, showing how a better understanding of purpose could point the way toward a more usable definition.

One of the most prominent proposals comes from Polly Higgins, who defines ecocide as "the extensive damage to, destruction of or loss of ecosystem(s) of a given territory, whether by human agency or by other causes."[154] On this definition, the damage must be sufficiently severe as to diminish the "peaceful enjoyment by the inhabitants" or "peaceful enjoyment by the inhabitants of another territory."[155] Another prominent proposal, from Mark Gray, defines ecocide as the "deliberate or negligent violation of key state and human rights" in a way that produces "(1) serious, and extensive or lasting, ecological damage, (2) international consequences, and (3) waste."[156] What unites these and other proposals is their breadth.[157] They purport to criminalize damage to ecosystems caused by whatever means, regardless of the intent of the alleged perpetrator, with few limits on their application or scope.[158]

One way to address these problems is to specify the purpose of prosecuting climate crimes and to limit the definition so it fits prosecutorial purposes. Mark Gray's goal in proposing his definition of ecocide is to address an enormous range of harms.[159] He describes the "mindless destruction" of the environment caused by human activities as "immoral, an affront to humanity, nature and God."[160] Polly Higgins, for her part, aims to situate ecocide as at least a partial solution to actions that "threaten the future of humanity and other species."[161] These purposes are so broad as to make it practically impossible to arrive at a clear definition of climate crimes. To be clear,

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153 *See* Higgins, Short & South, *supra* note 108, at 262.

154 *See* Higgins, *supra* note 149, at Art. 1.1. *See also* Higgins, Short & South, *supra* note 108, at 252.

155 Higgins, *supra* note 149, at Art. 1.1.

156 Gray, *Ecocide*, *supra* note 107, at 216.

157 For a more comprehensive survey of the various proposals, see Higgins, Short & South, *supra* note 108, at 258-62 (describing the history of proposals to criminalize activity that produces climate harms).

158 *See id.* at 262-63.

159 *See* Gray, *Ecocide*, *supra* note 107, 216.

160 *Id.*

161 Higgins, Short & South, *supra* note 108, at 252.

I do not purport to disagree with these characterizations of the perils of climate change. Climate change is real and demands action.[162] There is a consensus among scientists around three issues related to global warming: that it is occurring and very likely to get worse; that it is mostly caused by human activity; and that it is possible to identify with growing precision those activities that have caused and continue to contribute most to the problem. Citizens and policymakers agree that climate change requires a comprehensive response if its worst effects are to be avoided or mitigated.[163] But the question is how best to use international criminal law to contribute to preventing or slowing climate change or in addressing its many consequences.

More modest objectives would make it possible to arrive at a more workable definition of climate crimes. Recall that I argue that objective of prosecuting climate crimes should be to change the attitudes and behavior of individuals and corporations by showing that even small contributions to climate change are legally and socially relevant. Contrast this modest goal to the explanations underlying the other proposals. A more modest definition would focus on actions that contribute to a broader problem without the problem of overbreadth. It would not, for example, condemn all fossil fuel use or all emissions. In contrast, it might focus instead on the failure to comply with existing regulations when some activity causes environmental harm, or target the ecological harms attendant to conduct that is also harmful to humans or property. Such an approach would signal that ecological harms are socially and legally important and worthy of condemnation.

Finally, a significant problem facing any prosecutor attempting to use a climate crimes approach is that of proof.[164] How can a prosecutor assemble the evidence of a crime, and where will that evidence come from? The Rome Statute of the International Criminal Court requires, as does virtually every criminal statute, that the accused must be found guilty beyond a reasonable doubt.[165] The evidence must show that a particular defendant committed the prohibited acts (or omissions) with the requisite mental state. This basic feature of the criminal law raises a number of problems for advocates of climate crimes. First, because climate change is a geographically-diffuse phenomenon, evidence of the causes and

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[162] INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE [IPCC], *Climate Change 2013: The Physical Science Basis* (2013).

[163] *See generally* Daniel A. Farber, *Issues of Scale in Climate Governance, in* OXFORD HANDBOOK OF CLIMATE CHANGE 479, 479-80 (Druzek et al. eds., 2011).

[164] See Keenan, Ku & Scott, Climate Change Court, supra note 10, at 71.

[165] Rome Statute of the International Criminal Court art. 66 ¶ 3, July 17, 1998, 2187 U.N.T.S. 90.

effects of climate crimes is not neatly confined to one jurisdiction.[166] Often the evidence will be spread over multiple jurisdictions and any prosecutor wishing to bring a case will need to obtain evidence from many sources. This is not a new problem in transnational criminal law, of course, but it has particular relevance to climate crimes. There are two principal means by which to address these issues: official information sharing and crowd-sourcing.[167] There are real-world examples of each approach that show some promise, but neither is a perfect fit with climate crimes.[168]

Transnational crimes are not new, and neither are the evidentiary issues that come with them. States have long sought ways to acquire and share evidence of crimes to enable prosecution and have found ways to address at least some of the complexities of this problem.[169] To be usable in a criminal proceeding, evidence typically must be gathered, preserved, and transmitted in accordance with rules that protect the rights of criminal defendants.[170] For example, evidence that is gathered illegally might be inadmissible in a subsequent criminal proceeding, rendering it useless.[171] Similarly, evidence with unknown origins might be insufficiently reliable for admission in court proceedings.[172] These problems are serious when evidence is gathered by law enforcement agencies governed by the same sovereign. They are even more complicated when the agency gathering the evidence is governed by a different sovereign and different legal regime than the authority that eventually prosecutes the case.[173]

One solution to this problem is for prosecuting authorities to require that evidence be gathered in accordance with specified rules. Under this model, the prosecuting authority would promulgate rules governing the acquisition of evidence and enforce those rules through

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[166] *See* REINHOLD GALLMETZER & MATTHEW E. CROSS, UNLOCKING NATIONAL LAW ENFORCEMENT TO EFFECTIVELY ADDRESS GLOBAL CHALLENGES 11-13, http://www.climatecrimeanalysis.org/uploads/1/0/0/9/100934400/law_enforcement_support_model__rg-mec_.pdf [https://perma.cc/79LW-4MWR] [hereinafter GALLMETZER, UNLOCKING NATIONAL LAW ENFORCEMENT].

[167] *See id.* at 13-14.

[168] *See id.* at 12-13.

[169] See Bernd Schunemann, *Solution Models and Principles Governing Transnational Evidence-Gathering in the EU*, *in* TRANSNATIONAL EVIDENCE AND MULTICULTURAL INQUIRIES IN EUROPE 161, 163 (Stefano Ruggeri ed., 2014).

[170] *See id.* at 162.

[171] *See id.* at 163.

[172] *See id.* at 162-63.

[173] *See id.* at 162.

its admissibility decisions. This model has the potential to yield clear, predictable rules that put both the prosecution and any potential defendants on notice as to the appropriate means of gathering evidence. Another solution to this problem is for the prosecuting authority to require that evidence be gathered in accordance with the rules in force where the evidence is gathered. This approach sacrifices some predictability, but would likely result in less evidence being deemed inadmissible simply because it was not gathered in accordance with idiosyncratic local procedures.

In addition to these traditional regimes, there is an emerging approach that may prove especially effective in the prosecution of climate crimes. Ordinary citizens often have access to direct evidence of climate crimes and increasingly have access to the tools necessary to document and share that information.[174] With this approach, citizens themselves would record evidence of climate crimes and share that information with law enforcement personnel.[175] Under this crowd-sourcing approach, citizens are empowered to identify harms that might not be apparent to investigators because it is too geographically remote or in an early stage, such as a pipeline that has begun to leak but not yet ruptured. This model could help eliminate or mitigate political biases that might seep into enforcement priorities. For example, if local law enforcement officials were benefitting from a harm-producing project, they might be unwilling to assemble the necessary evidence or pass it along to officials in other countries. Local citizens, unencumbered by the same conflicts, would have a stronger incentive to gather and share evidence.

This approach is plausible and potentially very effective largely because of the exponential improvements in communications technology and the penetration of personal devices. For example, in the Democratic Republic of Congo, illegal logging is a ongoing problem that has proven difficult to solve.[176] The loss of forest cover contributes to soil and water problems and reduces the Congo Basin's potential as a carbon sink.[177] Since 2014, citizens have played an increasingly important role in addressing the problem using a simple crowd-sourced mapping tool.[178] Among other things, the tool allows

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[174] *See* GALLMETZER, UNLOCKING NATIONAL LAW ENFORCEMENT, *supra* note 166, at 6.

[175] In a working paper addressing some of these issues, Reinhold Gallmetzer and Matthew E. Cross call this the "law enforcement support model." *See id.* at 2.

[176] *See id.* at 11-13.

[177] *See id.* at 11.

[178] *See* Hal Hudson, *Congo's Fragile Forests Watched Over with Online Map*, NEWSCIENTIST (April 23, 2014), https://www.newscientist.com/article/mg22229664-

local citizens to use a simple mobile phone application to report illegal logging or illicit activity that would almost certainly escape the notice of authorities.[179]

It is important to note that the citizen-led model does not solve the reliability problems noted earlier. It would still be incumbent upon prosecutors to demonstrate the reliability and probity of any evidence they sought to use in a criminal prosecution. This problem could be partially solved if prosecutors used citizen-submitted evidence as grounds to open an investigation, but did not rely upon it (or did not rely upon it exclusively) as the basis of the eventual prosecution. And technology might help solve at least some evidentiary problems by providing information about the time and place that the evidence was recorded.

IV. COMPLICATIONS AND OBJECTIONS

Advocates have long sought a role for the criminal law, and international criminal law, in the fight against climate change and environmental degradation, and these efforts have so far gotten little traction. There are many reasons for this, but two warrant particular attention. First, all efforts to confront climate change have run into strong political headwinds. The problem thus is not unique to international criminal law, but any efforts to harness international criminal law in efforts to address climate change must confront this issue. I argue that the general acceptance of climate change as a fact, coupled with the recognition that addressing it will require people to reconsider settled patterns of activity, have combined to create some political space for at least some efforts to address climate change using international criminal law. A separate objection to using international criminal law to address climate change is more specific to international criminal law. There are those who argue that international criminal law is simply not suited to address a problem of this kind.[180] This argument may have been appropriately aimed at early efforts to create broad, sweeping criminal law statutes to halt climate-affecting activity.[181] However, what I propose is much more modest and fits within the kinds of activities that have long been addressed by the criminal law.

Before moving on, it is important to note that I argue above that the

200-congos-fragile-forests-watched-over-with-online-map/ [https://perma.cc/LZT6-3E5M].

179 *See id.*

180 *See* Keenan, Ku & Scott, *supra* note 10, at 69, 79.

181 *See id.* at 69-72.

expressive considerations I highlight should be used to guide prosecutorial discretion, not to justify the imposition of punishment. The justification for official action should be supported by a desert-based theory, with offenders prosecuted and punished only if their behavior makes them sufficiently morally blameworthy to warrant punishment. Although outside the scope of my current inquiry, it is important to address at least briefly some of the implications of making my approach subsidiary to a desert-based approach. One important implication is that the prosecution of climate crimes will often be auxiliary to prosecution for other matters. If prosecutors have identified harmful conduct that might warrant criminal prosecution, then considerations of the expressive value of the addition of climate-related charges might support the decision to focus on one target and not on another target whose behavior did not include climate crimes. In this approach, it is unlikely that there would be prosecution of offenders who would not otherwise have come to the attention of prosecutors.

A second implication of this approach is that convictions for climate crimes may well be met with skepticism by the public or appellate courts, at least at first. This should not operate as a bar to prosecution. When prosecutors have wide discretion to bring or decline to bring cases, it is axiomatic that they do so based on legitimate criteria. For example, the United States Attorney's Manual, which provides guidance on a host of issues for federal prosecutors in the United States, explicitly addresses the grounds for initiating or declining to initiate a prosecution.[182] Relevant for this discussion is the admonition that when there is adequate basis in law and fact to initiate a prosecution, "the likelihood of an acquittal due to unpopularity of some aspect of the prosecution . . . is not a factor prohibiting prosecution."[183] This principle—that likelihood of acquittal for an illegitimate reason is not a bar to prosecution—would apply in the context of climate crimes as well. Thus, even if a conviction appeared likely to be difficult to obtain, because the objective is to affect attitudes the prosecution would nonetheless be justified.

A. Political Plausibility

One of the most difficult roadblocks to addressing climate change with international criminal law is the political opposition that has

[182] *See* U.S. DEP'T OF JUSTICE, UNITED STATES ATTORNEY'S MANUAL 9-27.220, https://www.justice.gov/usam/usam-9-27000-principles-federal-prosecution#9-27.110 [https://perma.cc/3HTM-YW68].

[183] *Id.* at *Comment*.

plagued other efforts to combat climate change. Climate change has been the subject of controversy since the 1980s, when it first became part of mainstream political consciousness in the United States. The debates and controversies have affected every dimension of climate change. Scientists have debated whether climate change was happening at all (though there is now, of course, an overwhelming scientific consensus that it is occurring). Scientists and policymakers have debated whether and to what extent human activity is responsible for climate change. And there continues to be a significant debate about what the most likely future trajectory of climate change will be. For the purposes of this Article, however, the debates that have the most resonance center around the appropriate responses to climate change.

Two important issues have stood out in the debates about the appropriate responses to climate change, particularly those that involve explicitly legal responses. Climate change responses that are or would be mandatory have generated far more opposition than have those responses that would be voluntary. Measures that citizens, communities, or corporations could decide on their own to adopt—and do so on their own timetable—have been more palatable than measures that come as commands. Separately, climate change responses that appear to be based on culpability or fault have similarly met significant opposition. Even as advocates that have sought to assign fault have targeted polluters for moral reasons, fault-based responses have been difficult to enact. International criminal law is, of course, a fault-based, mandatory regime. Criminal law is a command and penalizes only those who are at fault for wrongdoing. For these and other reasons, I have argued elsewhere that the politics of an international criminal law response make it unlikely to be of great use as a tool to combat climate change.[184] This is especially true with respect to the most ambitious proposals from scholars and advocates that center on convincing the United Nations (or alternatively, a group of wealthy nations) to create a new juridical body to address climate crimes.[185]

The politics of climate change will likely be contentious for the foreseeable future, but my argument should not provoke the same kind of political opposition as previous proposals have. I argue that using criminal law tools to address climate-harming behavior should be done modestly and with the objective of changing attitudes and behavior. This is a different proposition altogether than earlier

[184] See Keenan, Ku & Scott, *supra* note 10, at 80.

[185] *See* id. at 79-80.

attempts to find and assign fault for all of climate change. My proposal is not that prosecutors should take on the entire fossil fuel industry and hold it at fault for all of climate change. Instead, I argue that prosecutors should, when making decisions about how to bring and shape cases, explicitly address climate-harming behaviors.

B. Poor Fit with International Criminal Law Institutions

Another argument against using international criminal law to address climate change is that this problem is not the kind that international criminal law is best able to address. It is true that the contemporary international criminal law institutions (with the exception of the International Criminal Court) have come into existence to address violent crises in particular countries or regions.[186] When a state must decide whether to consent to the jurisdiction of a new juridical institution (or accede to the International Criminal Court), one important consideration is that the state will inevitably relinquish some of its sovereignty. By agreeing to be subject to the jurisdiction of an international or foreign institution, the state is ceding power over itself or its citizens (or corporations) to that institution. This has understandably generated controversy with respect to the ICC, and has been a consideration for states undergoing a transition after a time of crisis or violence.

My argument does not turn on the creation or existence of a new institution or on states ceding sovereignty to other states or international institutions. To be clear, the creation of a climate court or similar institution would certainly be a salutary development as the effects of climate change begin to affect more and more parts of the everyday lives of citizens around the world. But my argument does not require a central institution. Instead, I argue that states can use international criminal law concepts in domestic prosecutions, and that the International Criminal Court should consider climate-harming behaviors, even in the absence of a new institution. Proponents of climate crimes have called for a centralized climate court, to which offenders charged with climate-harming cases would be brought to face charges related to climate crimes.[187] Such a court is likely politically infeasible.[188] But it is eminently possible for prosecutors in many jurisdictions to bring charges for climate-harming conduct within their own legal system. On this approach, international criminal law would enrich criminal law, not be a substitute for it.

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[186] *See* Keenan, *Problem of Purpose*, *supra* note 13, at 440-443.

[187] *See* Keenan, Ku & Scott, *Climate Change Cour*t, *supra* note 10, at 68.

[188] *See id.* at 79-80.