

*The Tragedy of Anarchy: A Realist Appraisal of the Environmental  
Dimensions of Civil Conflict*

*Second Prize Winner*  
**JOURNAL OF MILITARY AND STRATEGIC STUDIES**  
**AWARD OF EXCELLENCE 2009**

**Meghan Spilka O'Keefe**

Sources of domestic conflict can be seen through different theoretical lenses. Some scholars, such as Jack Snyder and Robert Jervis, draw from realism to argue that domestic conflict is akin to interstate war, and is, therefore, the result of security dilemmas or alliance systems. Other scholars, John Mueller and Stephen Van Evera for example, employ pluralism to maintain that violence at the domestic level rises out of ethnic clashes or nationalist movements. A third group of scholars, including Thomas Homer-Dixon, Nils Petter Gleditsch, and Michael T. Klare, contends that violent conflicts, domestic *and* international, are the result of the relationship between actors and the changing biophysical environment. To be sure, there is no widely-accepted grand theory about how all conflicts arise and this paper does not try to construct one. It does create a model, however, to explain how resource conflict can occur by looking at the basic tenets of realism in order to identify the environmental dimensions of civil conflict.

This paper's argument is that the biophysical environment plays a significant role in triggering and prolonging the structural conditions that result in conflict. Indeed, the conditions that realists argue give rise to and prolong conflict, such as anarchy, security dilemmas, and the prisoner's dilemma, are an applicable means of interpreting environmental

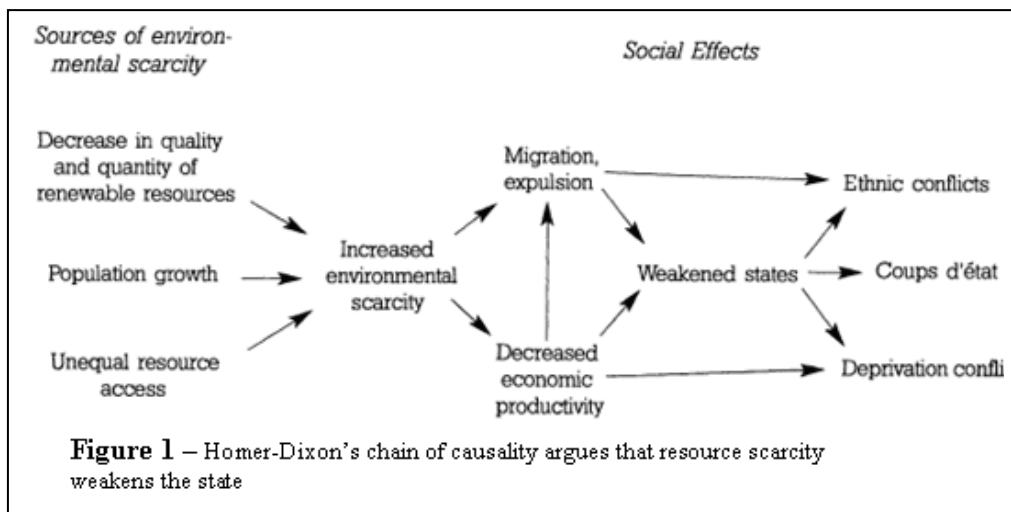
or resource-based conflicts. To build a model of how violent resource conflicts can erupt, this paper will first explore the common theories regarding resources and conflict. Second, this paper will argue that, in weak states, 'environmental anarchy' can occur when there is no active government regulation or management of the distribution of natural resources internally and that this condition of anarchy results in a 'tragedy of the commons.' This point will be built upon with an analysis that 'tragedies of the commons' create resource scarcities, which produces security dilemmas over the ownership and exploitation of resources. The security dilemma, it is argued, gives rise to violence and, in these violent security-dilemma settings, the occurrence of the prisoner's dilemma perpetuates violence and prevents resolution. In the third section of this paper, the arguments of David G. Victor, who challenges the thesis that 'resources give rise to conflict' will be confronted and refuted. Finally, the conclusion briefly analyses how resource-theory and realist-theory interact in conflict. Whereas some scholars, including David G. Victor, discount the thesis that resources play a significant role in civil conflict, a this paper's purpose is to show that, while the paradigms and approaches scholars utilize may be varied, it is necessary for the peace process that these scholars, and the policymakers they influence, find common ground. Certainly, as this section addresses, if policymakers appreciate the dynamics of resource and security-dilemma driven conflicts, leaders can mitigate the threats of violence by changing the balance of 'resource-power' through the management of the biophysical environment.

### **Theories of the Environment and Conflict**

In recent years, two prominent theories of how an actor's interactions with the environment can lead to conflict have emerged; these two theories are colloquially known as 'scarcity-driven' and 'greed-motivated' conflicts. This section examines the academic debate that has emerged regarding the biophysical environmental causes of conflict. The purpose here is not to demonstrate that either theory is more accurate. In fact, this paper does not disagree with either analysis. However, the author's intent is to confirm that there is an active and dynamic debate in academia regarding *how* the environment can trigger or affect violent conflict.

'Scarcity-driven' conflicts are the consequence of environmental changes such global warming, resource degradation, natural disaster or human-environment exploitation. A main

proponent of this proposal is Thomas Homer-Dixon. He argues that resource scarcity has the potential to create anarchy in the state and trigger violent conflict. The social and political effects of resource scarcity can result in what Homer-Dixon calls ‘simple scarcity conflicts.’ Ragnhild Nordas and Nils Petter Gleditsch argue that, “[i]f climate change results in reduced rainfall and access to the natural capital that sustains livelihoods, poverty will be more widespread, leading to increased grievances and better recruitment opportunities for rebel movements.”<sup>1</sup> Homer-Dixon further suggests that conflict arises when discontented and frustrated groups that are being deprived of access to resources revolt. He argues that “these groups believe the distribution of rewards is unfair.”<sup>2</sup> His model of how environmental scarcities give rise to violence is illustrated in **Figure 1**.<sup>3</sup> The chain of causality presented in this argument implies that climate change and population growth, among other factors, result in resource scarcities, which results in a weakened state and the growth of conflict. On the



other

hand, greed-motivated

conflicts arise when rebels perceive that resource looting and violent conflict are profitable. Paul Collier, the most prominent proponent of this perspective, argues that “economic

<sup>1</sup> Ragnhild Nordas and Nils Petter Gleditsch, "Climate Change and Conflict," *Political Geography* 26 (2007): p. 631.  
<sup>2</sup> Thomas F. Homer-Dixon, "On the Threshold: Environmental Changes as Causes of Acute Conflict," *International Security* 16, no. 2 (1991): pp. 109, 112.  
<sup>3</sup> Image from Thomas Homer-Dixon, "Environmental Scarcities and Violent Conflict: Evidence from Cases," *International Security* 19, no. 1 (1994): p. 31.

agendas appear to be central to understanding why civil wars start.”<sup>4</sup> Economic and resource greed, he argues, is the driving force behind civil conflict, because “it is likely that some groups are benefiting from conflict and that these groups therefore have some interest in initiating and sustaining it.”<sup>5</sup> Collier maintains that conflict can be motivated by greed by contending that there are more inviting economic prospects for rebellions than there are in other sectors of society. Individuals perceive that they can earn more through looting and pillaging than they can in a more professional setting due to the low-level of development and professional opportunities, as well as the high probability of instability in their home state. Collier explains that conflict settings are less predictable than stable periods and, as a result, individuals shorten their time-horizons. Individuals and groups become more opportunistic in business relationships because they tend to discount their futures. The logic of this thesis suggests that, in domestic conflict, participants are more opportunistic, have less regard for the biophysical environment, and are more likely to loot or steal resources.

While there are a number of other scholars that discuss different ways in which resources can motivate or prolong conflict, what is evident, from the arguments of both Homer-Dixon and Collier, is that various aspects of the biophysical environment can trigger conflict either because of its inherent or monetary value. The biophysical environment can also exacerbate pre-existing conditions that advance the likelihood of violence. Either way, what this shows is *not* that one analysis is more accurate than the other, but that biophysical environment has the potential to play a significant role in war. The next section of this paper will examine a third way to explain the role of resources in conflicts.

### **Anarchy, the Tragedy of the Commons and the Resource-driven Security Dilemma**

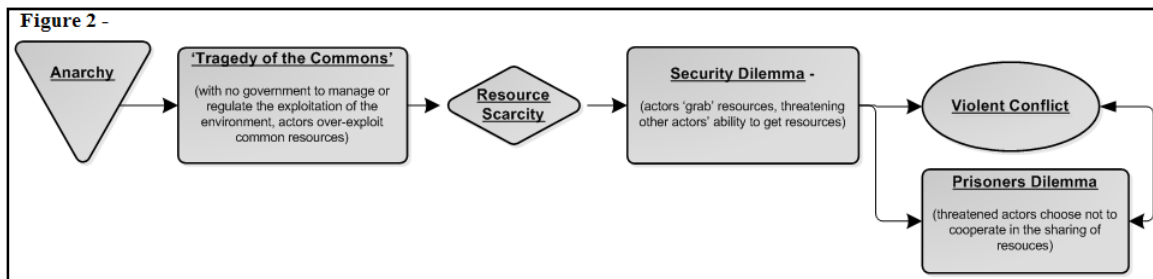
Some realists, influenced by rationalism, have applied game theory to explain how rational self-interested actors make decisions in civil conflicts. This section will use the principle assumptions of realism to explain how resource-based civil conflicts arise, and look at the conditions of anarchy that exist *within* these states. This analysis first defines the condition of anarchy to be present in a state that fails to manage the resources within its

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<sup>4</sup> Paul Collier, "Doing Well out of War: An Economic Perspective," in *Greed and Grievance: Economic Agendas in Civil Wars*, eds. Mats Berdal and David M. Malone (Boulder and Ottawa: Lynne Rienner and International Development Research Centre, 2000): p. 91.

<sup>5</sup> *Ibid.*, p. 91.

territory and argues that this condition gives rise to the ‘tragedy of the commons,’ which in turn leads to resource scarcities and creates resource-motivated violence. Second, this case is strengthened by drawing on Robert Jervis and Jack Snyder, who contend that the condition of anarchy leads to the security dilemma, which can give rise to predatory behaviour, zero-sum conflicts of interest, and inimical, mutually exclusive identities.”<sup>6</sup> Jervis and Snyder’s argument is developed further through an analysis which asserts that security dilemmas are not necessarily arms races, but can instead be ‘resource races;’ the security dilemma can result in resource-motivated violence. Third, this argument will be reinforced with an analysis that shows that, in a resource-security dilemma, stag hunts can become prisoner’s dilemmas, perpetuating insecurity and violence among participants. This chain of causality is presented and argued in this section and illustrated in **Figure 2**. What makes this argument different than other arguments regarding the environment and conflict, specifically Homer-Dixon’s thesis, is this chain of causality. While Homer-Dixon argues that resource scarcity *creates* a weak state and, thus, a condition of anarchy, the author



My model explains how the condition of anarchy inside a state can create environmental or resource-based violence. This image shows that anarchy leads to the ‘tragedy of the commons,’ in which common—or shared—resources in the biophysical environment are over-exploited, creating scarcities and security dilemma-driven conflict.

of this paper has observed that a reverse chain of causality exists in which the condition of anarchy produces resource scarcities. These elements of the argument, anarchy, security dilemmas, stag hunts and prisoner’s dilemmas, all of which are typically attributed to realism, are useful in interpreting the nature of biophysical environmental conflicts. Indeed, Homer-Dixon and Collier are used to illustrate that environmental conflict can take the form of scarcity-driven or greed-motivated conflicts. Yet, this analysis clearly shows that environmental conflict can be also interpreted from a third perspective: the realist lens. It is

<sup>6</sup> Robert Jervis and Jack Snyder, "Civil War and the Security Dilemma," in *Civil War, Insecurity and Intervention*, ed. Barbara F. Walter and Jack Snyder (New York: Columbia University, 1999), p. 23.

demonstrated that realism is relevant in explaining environmental conflict considering the internal anarchy that exists in weak can lead to resource scarcities, which in turn create resource-based security dilemmas and violent conflict.

### **Anarchy and the Tragedy of the Commons**

In the post-Cold War era, the breakdown of developing states spawned chaotic civil violence. Jervis and Snyder argue that within insecure developing states, civil conflicts “seem to replicate the well-known pattern of Hobbesian competition for security in the “state of nature,” where no sovereign power protects fearful individuals from each other.”<sup>7</sup> The Hobbesian ‘state of nature’ is an environment of anarchy where “there is no common power [or] common law.”<sup>8</sup> According to Hobbes, “suspicion, distrust, conflict, and war are seemingly inevitable,” in this environment unless there is an authority, a *Leviathan*, that can centralize political order.<sup>9</sup> As Paul R. Viotti and Mark V. Kauppi discuss, “[w]ithout order, [Hobbes] argued, civilization and all its benefits are impossible—no economic development, art, knowledge, or anything else of value.”<sup>10</sup> In the condition of anarchy, there is, typically, a lack of trust among actors, and as Viotti and Kauppi suggest, “[e]ach [actor] faces a self-help situation in which it is dangerous to place the security of one’s own country in the hands of another.”<sup>11</sup>

Furthermore, in a condition of internal anarchy, the government is incapable of governing. Therefore, the state cannot, as Viotti and Kauppi suggest, ‘develop.’ Nor can the state punish unlawful citizens, and most importantly for the discussion of this paper, the government cannot manage or allocate its natural resources, whether these resources are oil, coal, diamonds, water, timber or nutrient-rich crop land. Without government management of the biophysical environment, it is possible for a ‘tragedy of the commons’ to occur. The ‘tragedy of commons,’ a term coined by Garrett Hardin in 1968, refers to the dilemma that occurs when numerous self-interested actors overexploit a shared resource, thereby destroying

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<sup>7</sup> Ibid., p. 16.

<sup>8</sup> Thomas Hobbes, “Of the Natural Condition of Mankind,” in *International Relations Theory: Realism, Pluralism, Globalism, and Beyond*, ed. Paul R. Viotti and Mark V. Kauppi (Boston: Allyn and Bacon, 1999), p. 110.

<sup>9</sup> Paul R. Viotti and Mark V. Kauppi, *International Relations Theory: Realism, Pluralism, Globalism, and Beyond*, 3rd ed. (Boston: Allyn and Bacon, 1999), p. 61.

<sup>10</sup> Ibid., p. 61.

<sup>11</sup> Ibid., p. 69.

their long-term prospects of benefitting from it.<sup>12</sup> There is a powerful lesson in Hardin's model: when there is no regulation of the biophysical environment, "[r]uin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons."<sup>13</sup> "Freedom in a commons," he argues, "brings ruin to all."<sup>14</sup> Indeed, the significance and implications of Hardin's 'tragedy of the commons,' is that when a state fails to manage its resources, anarchy follows. When the biophysical environment is no longer managed from the centre, resources become 'commons.' In the state with no management of the distribution of the biophysical environment, the self-interested actors abuse the commons as Hardin's model assumes. As resources become degraded, they too become scarce. The logic I am presenting is that as anarchy consumes the state, 'tragedies of the commons' become widespread and resource scarcities become universal. This situation is significant because resource scarcities have the potential to trigger violent conflict. Violence occurs *not* because resources are scarce, but because resource scarcities create security dilemmas.

### **The Security Dilemma and the Resource-Driven Security Dilemma**

Jervis and Snyder apply the security dilemma model, "a situation in which each party's efforts to increase its own security reduce the security of others,"<sup>15</sup> as an explanation for civil conflict. The logic underlying the security dilemma is that one group's defensive actions are offensive, or threatening, to another group.<sup>16</sup> Groups, then, respond to this perceived offensive behaviour with threats to other groups. In other words, "what one does to enhance one's own security causes reactions that, in the end, can make one less secure."<sup>17</sup> Security dilemmas occur

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<sup>12</sup> Hardin illustrates his point with the example of cattle herders sharing a common area of grazing land. Hardin says that each herder is permitted to put as many cattle as he wants onto the shared land. Therefore, each herder, acting with self-interest and rationality, calculates that the more cattle he puts onto the land, the more he will profit. However, in due time each herder will put all of their cattle on the land to maximize their own self-interest. By doing so, the herders have overstretched the carrying capacity of the land. The result is that the herders can no longer benefit from the common grazing area.

<sup>13</sup> Garrett Hardin, "The Tragedy of the Commons," *Science* 162 (1968): p. 1244.

<sup>14</sup> *Ibid.*, p. 1244.

<sup>15</sup> Jervis and Snyder, "Civil War and the Security Dilemma," p. 15.

<sup>16</sup> Barry R. Posen, "The Security Dilemma and Ethnic Conflict," *Survival* 35, no. 1 (1993): p. 28.

<sup>17</sup> *Ibid.*, p. 28.

when strategic conditions leave violence to be the most useful form of self-defence.<sup>18</sup> Jervis and Snyder suggest that, in the security dilemma model, the behaviour of groups turns violent when participants misperceive the threats of their adversaries.<sup>19</sup> For example, 'A' decides to bring a gun to work one day to protect himself. Noticing this action, colleagues at work become threatened that he has a gun and choose to purchase guns to protect themselves. One day, 'A' pulls his gun out of his desk. A colleague, seeing the gun, fears for his safety and shoots 'A' out of a (mis)perceived fear that he would be shot by 'A'. The realist argument underlying the security dilemma is that when authority in a state disintegrates and anarchy follows, "prudent self-help may require preventative attacks to hedge against possible threats, even in the limiting case where everyone only seeks security."<sup>20</sup> Security dilemma theorists argue that conflict is preferred in these scenarios because groups judge that violence is the best means of achieving security. The colleague who shot me now feels safer at work without, me, his gun-toting co-worker, in the office.

In a situation where anarchy exists and resource scarcities are wide-spread, the security dilemma transpires because circumstances of "resource capture" occur.<sup>21</sup> Resource capture is a scenario in which powerful groups take control of scarce resources at the expense of weaker groups.<sup>22</sup> Nordas and Gleditsch contend that the reduction in availability of essential resources, such as water or food, can lead to fighting between groups to gain access to scarce resources.<sup>23</sup> As frustrated groups try to gain control of dwindling resources, they will necessarily take resources from other groups. This is a security dilemma because one group's use of scarce resource threatens another group's use of those resources. Any attempt by one group to increase the amount of resources they have will, naturally, take away the resource that another group could potentially possess. For example, assume that a person requires three ears of maize to ensure his survival. However, there are two people equally hungry and there are only four existing ears of maize. The consumption of even two pieces of maize by one person will necessarily threaten the survival of the other. The implication of this zero-sum gain model is that, if resources are essential to survival or deemed desirable, actors will fight to gain access to scarce resources.

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<sup>18</sup> Jervis and Snyder, "Civil War and the Security Dilemma," p. 15.

<sup>19</sup> *Ibid.*, p. 16.

<sup>20</sup> *Ibid.*, p. 17.

<sup>21</sup> Clionadh Raleigh, "Climate Change, Environmental Degradation and Armed Conflict," *Political Geography* 26 (2007): p. 678.

<sup>22</sup> *Ibid.*, p. 678.

<sup>23</sup> Ragnhild Nordas and Nils Petter Gleditsch, "Climate Change and Conflict," *Political Geography* 26 (2007): p. 631.



## The Prisoner's Dilemma

Consequentially, in the security dilemma model, cooperating to share resources is unlikely as actors cannot trust each other. Thus, the stag hunt scenario as explained by Kenneth Waltz,<sup>24</sup> in which cooperation is the most desired outcome, can easily transform into the prisoner's dilemma,<sup>25</sup> where defection is the most rational option.<sup>26</sup> Waltz argues that an actor in the stag hunt needs to cooperate, or they will die.<sup>27</sup> The implication here is that the *rational* individual would not defect, because cooperation maximizes success.<sup>28</sup> In a resource-security dilemma, however, cooperation is not an option because each actor's efforts to gain resources necessarily threaten the prospects of another actor to gain resources. While cooperation is desirable, actors will likely distrust their adversaries and will engage in resource-grabs to ensure their survival. This defection from cooperation turns the stag hunt into the situation where defection (or stealing resources) is more desirable than agreeing to cooperate. This is the prisoner's dilemma. This argument is illustrated by Jervis and Snyder who argue that "the desire to protect one's future position under conditions of the security dilemma can transform a situation from a stag hunt into a prisoner's dilemma, in which exploiting the other side is preferred to mutual cooperation."<sup>29</sup> In the prisoner's dilemma,

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<sup>24</sup> Kenneth Waltz explains the stag hunt as situation where five hungry men come upon each other, "the hunger of each will be satisfied by the fifth part of a stag, so they "agree" to cooperate in a project to trap one." However, the hunger of one can satisfied by a hare. As a hare comes within reach, one man grabs it. The defector satisfies his hunger, but in doing so permits the stag to escape. "His immediate interest prevails over consideration for others." From Kenneth Waltz, "Explaining War," in *International Relations Theory: Realism, Pluralism, Globalism, and Beyond*, ed. Paul R. Viotti and Mark V. Kauppi (Boston: Allyn and Bacon, 1999), p. 135.

<sup>25</sup> Karen A. Mingst explains the prisoner's dilemma as a theoretical game in which the prisoners, assumed to be rational actors, are being interrogated separately for crime that was committed. The interrogator separately explains to each prisoner that if one confesses and the other does not, the one who confessed will be set free, while the other will serve time in prison. If both confess, or if neither prisoner confesses, both will serve prison sentences. However, if both confess, the sentence will be reduced. This game shows that in certain circumstances, it is more rational to defect (confess) than to cooperate (not confess) and serve a longer prison term. From Karen A. Mingst, *Essentials of International Relations*, 3rd ed. (New York: W. W. Norton and Company, 2004), p. 64.

<sup>26</sup> Ian S. Spears, "Africa: The Limits of Power-Sharing," *Journal of Democracy* 13, no. 3 (2002): p. 127.

<sup>27</sup> Waltz, "Explaining War," p. 135.

<sup>28</sup> Of course, in the stag hunt there is always the possibility that the defector who sought to grab the hare might fail. In failing, he fails to feed himself and loses his chance to eat some of the stag. Indeed, if the remainder of the group managed to successfully capture a stag, it is reasonable to assume that no member of the group would share their food with the defector. In either circumstance, the outcome is that the defector is left hungry. Indeed, cooperation, in this situation, is the most rational option.

<sup>29</sup> Jervis and Snyder, "Civil War and the Security Dilemma," p. 21.

resources are further exploited and become increasingly scarce. The result is a perpetuated cycle of violence over scarce resources.

This argument demonstrates that civil resource-conflicts can be understood by borrowing from realism. Internal anarchy results in resource scarcities, which in turn create resource-security dilemmas and conflict. Conflict in the security dilemma is perpetuated by the prisoner's dilemma, which promotes further exploitation of resources. This section has shown that, if states internally collapse and become anarchic, actors will overexploit common resources because, when there is no regulation of the biophysical environment, resources become scarce as a result of the 'tragedy of the commons.' This chain of events gives rise to violent conflict, when resources are scarce, because one actor's use of that resource necessarily threatens another actor's future use of that resource. While Homer-Dixon and Collier argue that 'resource-wars' can take the form of scarcity-driven or greed-motivated conflicts, this analysis suggests that there is a third way that resource-based conflicts can be interpreted.

### **Counterargument: "What Resource Wars?"**

In the November/December 2007 edition of *The National Interest*, David G. Victor's article "What Resources Wars?" dismisses the significance of the role that resources play in conflict. Victor argues that "resource wars" are "good material for Hollywood screenwriters," but in the real world these conflicts rarely occur.<sup>30</sup> In his argument, he suggests that the struggle for resources has led to "a wide array of commercial conflicts as companies duel for contracts and ownership," but not violent conflict.<sup>31</sup> Victor contends that, "[t]hese disputes win and lose some friendships and contracts, but they do not unleash violence."<sup>32</sup> Lastly, he examines climate change and insists that fears of global warming causing conflict are unfounded: "[w]hile there are many reasons to fear global warming, the risk that such dangers could cause violent conflict ranks extremely low on the list because it is highly unlikely to materialize."<sup>33</sup>

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<sup>30</sup> David G. Victor, "What Resource Wars?," *The National Interest* 92, no. Nov./Dec. (2007): p. 48.

<sup>31</sup> *Ibid.*, p. 49.

<sup>32</sup> *Ibid.*, p. 49.

<sup>33</sup> *Ibid.*, p. 52.

Victor suggests that the reason why conflict does not erupt is because states that share resources have “a lot more at stake and armed conflict rarely fixes the problem.”<sup>34</sup>

In the next publication of *The National Interest*, Thomas Homer-Dixon responds to “What Resource Wars?” He refutes Victor by arguing that conflicts are never exclusively about resources, but indeed resources play a significant role in conflict.<sup>35</sup> Michael T. Klare supports Homer-Dixon by insisting that, “[i]gnoring the resource dimension entirely means ignoring one of the key factors in this conflict.”<sup>36</sup> Homer-Dixon argues that Victor focuses too much on causations and too little on how resources can play a role in conflict. Indeed, resource scarcities and security dilemmas may not be *the* root cause of conflict, but they may trigger or prolong conflicts.

While Victor is right in his argument to suggest that effective policy would recognize a ‘dearth in governance, not a dearth in resources,’<sup>37</sup> he is wrong to argue that resources do not play a significant role in conflict. Indeed, resource conflicts occur because violence erupts from security dilemmas that come to light when resources become scarce. Whether resource-based violence is the result of Homer-Dixon’s argument, Collier’s argument, or the chain of causality suggested in this paper, resource conflicts *do* have the potential to occur in the real world. Victor’s error is that he fails to address the wide-range of roles that resources play in conflict. In doing so, he fails to see how conflict resolution must consider resources.

### **Conclusion: Managing the Balance of ‘Resource-Power’**

In the *Peloponnesian War*, Thucydides was less concerned with the immediate causes of the war than he was in the “underlying forces” that gave rise to conflict.<sup>38</sup> This paper has explored the common theories of explaining environmental-related causes of conflict and argues that there is a third way of understanding how the environment is an ‘underlying force’ that can lead to conflict. The second section provided a model of how realism can be used to explain environmental causes of conflict. It illustrates a chain of causality in which when a

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<sup>34</sup> Ibid., p. 52.

<sup>35</sup> Thomas F. Homer-Dixon, “Straw Man in the Wind,” *The National Interest* 93, no. Jan./Feb. (2008): p. 27

<sup>36</sup> Michael T. Klare, “Clearing the Air,” *The National Interest* 93, no. Jan./Feb. (2008): p. 28.

<sup>37</sup> Victor, “What Resource Wars?,” p. 48.

<sup>38</sup> Viotti and Kauppi, *International Relations Theory: Realism, Pluralism, Globalism, and Beyond*, p. 57.

state collapses, the 'commons' are exploited, resources become scarce and the security dilemma gives rise to resource-based violence. This violence is perpetuated by the prisoner's dilemma rationale, because, in a state of anarchy, rational actors opt to defect rather than cooperate in the sharing of resources. Although David G. Victor argues that resources do not play a role in conflict, a prudent statesman *must* recognize the role that resources play as an underlying force in conflict. Indeed, Jervis and Snyder argue that there are two prescriptions following the diagnosis of a security dilemma-driven conflict. On one hand, a sovereign authority could be established that is "capable of enforcing a hegemonic peace upon all the fearfully contending parties."<sup>39</sup> This occurrence will enforce cooperation, turning a prisoner's dilemma into a stag hunt. On the other hand, a shifting in the balance of power will create a "situation in which the parties can provide for their own security through strictly defensive measures."<sup>40</sup> In the case of a resource-driven security dilemma, shifting the balance of resource power—i.e. altering which groups have access to strategic resources—will lead to peace by 'evening out the power and strategic imbalances parties are likely to have.'<sup>41</sup>

The significance of the model presented here is that, in times of civil conflict, "[i]f interveners are to undo the security dilemma, they need to understand the social and perceptual factors that shape it."<sup>42</sup> Indeed, if conflict is to be resolved, understanding the underlying forces at work is essential to creating and maintaining peace. By presenting a third model of understanding environmental-based conflict, this paper shows that resources play a significant role in conflict. To be sure, the role of the biophysical environment cannot be ignored when understanding civil conflict and when working to foster peace.

Given the model presented in this paper, the next step for scholars is to apply this model to particular conflicts. For example, at first glance, it appears this analysis will provide insight in to the interconnections between conflict and resources in Somalia, Haiti and the eastern region of the Democratic Republic of Congo. Future analysis is undoubtedly required to test and prove the model put forth here.

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<sup>39</sup> Jervis and Snyder, "Civil War and the Security Dilemma," p. 17.

<sup>40</sup> *Ibid.*, p. 17.

<sup>41</sup> *Ibid.*, p. 17.

<sup>42</sup> *Ibid.*, p. 24.

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