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Claremont McKenna College

The Impact of Armed Drones on Human Security Goals

submitted to

Professor Jordan Branch Ph. D.

by

Sarath Kakani

for

Senior Thesis

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Abstract

The rapid proliferation of armed drones around the globe has sparked a debate on their benefits and their tradeoffs. Through a traditional security perspective, drones are the ideal weapon of the future: incredible technological capabilities lend tactical advantages to any military that owns drones. They allow actors to strike at enemy combatants without no risk to their own troops and minimal risk to any civilian bystanders. Yet through a nontraditional human security lens, armed drones have been nothing short of a disaster in protecting civilians and reducing collateral damage. The tactical advantages they lend users are some of their most problematic features when it comes to protecting civilians. This has been seen across multiple conflicts in the 21st century, at the cost of thousands of civilian lives. Since nations are disincentivized to self-regulate at the fear of disadvantage in conflict, it falls to international organizations to establish frameworks to better protect civilians before it is too late.

Introduction

In an era characterized by rapid technological advancements, the integration of armed drones into military arsenals has emerged as one of the defining features of contemporary conflict landscapes. In order to provide context as to why drones have become a military favorite, it is essential to establish a foundational understanding of the concept of traditional security studies, especially in the modern era. With that understanding, we can then turn to the evolution of human security, which extends beyond traditional security to encompass a broader spectrum of challenges and vulnerabilities that individuals and communities face. Thus, before delving into the specific implications of armed drones, we first examine the overarching framework of traditional security and the subsequent evolution of human security.

Once a foundational understanding of security has been established, we can then move into the specific impacts of drone technology through the dual perspectives of each security focus. This allows us to see how drones have been encouraged for their traditional security benefits, while also addressing why they fall so short in maintaining human security principles. This paper will conclude with recommendations on how to establish change to best protect human security objectives in a future where armed drones are increasingly common.

Security Studies as a Field

To best understand the subject of human security, one must understand the “timeline” of development in the field of security studies. Security studies is a continually evolving field, and there has not been a linear path to easily trace from its origin to the modern day (Buzan & Hansen, 2009). This difficulty is further compounded by the fact that time shifts the perspective of what fits in the field and what does not. For example, in their literature review Buzan & Hansen (2009) point out the idea that looking at the field from the perspective of a security scholar in 2008 would mean evaluating the field through vastly different assumptions, beliefs and even knowledge than a scholar from 1978 would hold. Using a variety of reviews as a foundation, I will outline the growth of the discipline in order to provide a comprehensive understanding of security studies before, during and after the inception of the specific concept of human security. I will also outline the basics of human security, such as providing a definition, background on its origins and how the field has grown since. Doing this will allow me to establish the foundational divisions in regards to traditional security and human security, as well as providing a background in which to compare technological impact on security across different viewpoints of what security consists of.

Historically in international relations scholarship, the area of security studies has traditionally focused on the “big picture”, so to speak (Schewe, 2022). This big picture examines the broader relationship between national security and stability as one of the guiding principles of international relations and statecraft (Schewe, 2022). Precursor literature from before the 1940’s generally centered around military strategy, war studies and the like, where writings from figures like Clausewitz and Haushofer originated from

(Buzan & Hansen, 2009). These writers were important in building the foundation of international relations as a whole, but their impact on modern security studies and human security don't have to be explored to build a working knowledge base for the purpose of this paper. Generally, it was after the Second World War ended when security studies began to transition away from their traditional focus on subjects like defense, war and empire building, instead developing what we understand as "security" as the key focus (Buzan & Hansen, 2009). Of course, both World War II and the Cold War shaped the issues of national security in an international system, driving the issue of national security to the forefront of national concerns (Taylor, 2012). This growth in the field brought about a number of interesting changes. For example, Taylor (2012) and Buzan & Hansen (2009) both outlined how security studies began to involve civilians in national security decision processes. The field of security studies saw a rapid development of civilian expertise and a rise of involvement during this period. Buzan & Hansen (2009) did clarify that this was mostly seen in democratic states, as more authoritarian governments tended to keep military power within the military. Civilian involvement was hugely important as it created a pathway for strategic thinking to be done by those outside the military as well. Interplay between civilian and military affairs also allowed governments to better coordinate "military, diplomatic and industrial processes" (Taylor, 2012). This coordination between different processes saw an increase in integration of military and non-military techniques in statecraft, and shaped the field of security studies in a way that fundamentally changed it.

Arnold Wolfers offered a similar perspective on the matter in his journal article when he categorized national security and interests as "ambiguous symbols": ideas that

can act as a centralizing force for a number of different objectives in relation to foreign policy (Wolfers, 1952, p. 4). Wolfers (1952) established that an evolution of what constitutes the national interest had taken place due to the impact of global conflicts. Looking at American foreign policy, he notes its distinct changes in form and function from the Great Depression to after the Second World War (Wolfers, 1952). Foreign policy was almost exclusively concerned with the promotion of the economic interests of the nation, and questions around it focused on whether it truly addressed the needs and interests of the nation as a whole, or if it was catering to specific subgroups with more power than another subgroup. It then evolved to broader concerns about national security, overshadowing pure economic interests to instead focus on military defense and readiness.

This shift was due to the impacts of living after World War II and living during the Cold War, both of which saw immense projections of strength as a common factor. Wolfers (1952) believes that is one of the defining principles of the ambiguous symbol at the time, especially for great powers like the US or Russia. National security tended to mean protection, especially through force, without a reliance on international institutions or cooperation. While Wolfers uses examples from the American foreign policy perspective, it still helps to establish what the general security environment was at the time. Buzan & Hansen (2009) also addresses this, exploring what they referred to as "peculiar strategic conditions" that transcended military theory. For example, they discussed how strategic bombing runs changed their target focus from only military targets to disabling important economic or infrastructural targets (Buzan & Hansen, 2009, p. 22). During the Cold War, national security studies became a crucial area of

academic and policy focus as scholars and policymakers sought to understand the dynamics of the global power struggle, the balance of power, nuclear deterrence, and various national security challenges in that day and age.

The next era in the development of security studies is oft-referred to as the field's "Golden Age", which is most notably characterized by the presence of nuclear weapons and the adaptation in strategy that followed (Baldwin, 1995). The immense destructive capacity of these weapons meant that engaging in direct warfare with nuclear armed opponents was no longer safe, even if your nation was armed with them as well. Because of this nature, nuclear weapons and the policy surrounding them became the top priority for national security academics, policymakers, and even the general public (Baldwin, 1995). With the international system also revolving around a bipolar competition between the US and the USSR, both of whom were armed with nuclear weapons, there could be no question what became the most important subject to discuss. Interestingly, Taylor (2012) also points out that nuclear weapons and conflict were extremely conducive for academic research, because there was so little data to work with. Nuclear weapons were only ever dropped on one country, with no danger of retaliation, so it left so much room for theoretical work rather than empirical analysis (Taylor, 2012).

The central theme of the Golden Age seemed to be incredibly straightforward in literature reviews. Baldwin saw it as a question: "How could states use weapons of mass destruction as instruments of policy, given the risk of any nuclear exchange" (Baldwin, 1995, p. 123). This question came with the obvious caveat that a single nuclear exchange would be the end of the world, and everyone involved in creating

strategy most certainly understood that (Baldwin, 2012). During this age, national security as a broader concept seemed to take a backseat to the central theme, as this single issue continued to dominate the field (Buzan & Hansen, 2009). Scholars offered a number of possible answers to the question posed, with the most notable being deterrence theory (Taylor, 2012). Using the realist assumption that governments would behave rationally, deterrence theory suggested that a nation's nuclear capabilities could be used to persuade other nuclear capable nations into not using their weapons (Taylor, 2012). Deterrence flowed both ways, and ensured that no nuclear exchanges occurred.

It is important to note while many scholars were rightfully concerned with the study of nuclear weapons and theory, this focus left many academics with large blindspots for anything that fell out of the nuclear or great power arena/purview (Buzan & Hansen, 2009). Strategy was almost exclusively concerned with the bipolar system and deterrence (Barkawi & Laffey, 2006), and any national security concerns that didn't involve those two issues might have only been explored or addressed mostly because of their potential impact on those two issues.

Understanding this highlights the idea that security studies during this era was a Western discipline, with little political or empirical relevance for many parts of the non-Western world. This does not mean that literature not focused entirely on nuclear deterrence or great power spheres of influence did not exist. Scholars certainly attempted to address other focal points, such as feminism or poststructuralism (Buzan & Hansen, 2009, p. 135). These topics did generate less attention, and subsequently less writing at the time, but they still existed. For the development of human security, this is often seen as an underappreciated factor. A challenge to the dominance of the nuclear

paradigm was one of the factors that led to the rise of human security as a concept, and this began with feminist security theory and the ideas of poststructuralism.

While those underexplored developments of security studies through the Cold War are important, I want to move to how the field continued to evolve after that period ended. Attention began to shift away from the cold war between the United States and the Soviet Union to hotter conflicts, like the Vietnam War (Baldwin, 1995). This led to a loss of interest in security studies, and the field experienced a period of decline in comparison to the supposed golden age (Baldwin, 1995). While this occurred for a number of reasons, the primary issue was the fixation on U.S-Soviet relations and nuclear strategy that scholarly understanding of issues outside of those areas were limited.

Baldwin offered an explanation by Colin Gray, where he posited that scholars and policymakers simply did not have the expertise on subjects like “peasant nationalism in Southeast Asia or about the mechanics of a counterrevolutionary war.” (Baldwin, 1995, p. 123). It is for this reason the war in Vietnam did not make a huge impact on security studies literature, even though it was hotly debated since the start and incredibly huge in scale. To this point, it also showed the limitations of abstract strategic theory when introduced to real world situations, especially with the defeat of the United States at the hands of what they considered to be a vastly inferior fighting force.

After the Vietnam War, security studies saw a return to the bipolar tensions that had plagued the world, and national security studies responded to this remission by returning to traditional theories and actions, under the label of “international security” as opposed to purely national security. This period was marked by the reemergence of

topics such as conventional military balance, force posturing and the considerations that must come with nuclear weapons policy as well (Baldwin, 1995). The 1980's brought about strategic innovations to research, analysis and other aspects of the field, but the era still centered around many of the same concentrations that characterized security studies since 1955: national security through the use of force and force projections, through all means at the disposal of your country (Baldwin, 1995).

It has been very clear that the Cold War had a huge impact on security studies, guiding the focus of research and analysis efforts since its inception into specific categories. Strategic engagement, great power politics and relations, and how to safeguard national security in an age where nuclear weapons can be at your doorstep in less than 15 minutes (Buzan & Hansen, 2009). It was at the end of the Cold War where a transition occurred, and newer security problems arose. The field of study began expanding to include new subjects to the international security agenda, moving away from the strict military/political focus.

The first of the newest considerations centered around economic and environmental securities, which joined the security agenda near the end of the Cold War (Buzan & Hansen, 2009). While their inclusion was controversial (many academics vehemently disagree on whether or not they constituted security issues), they still became established parts of the field. In the 1990's they were followed by other focuses like food security, identity security, and human security (Buzan & Hansen, 2009).

When literature was written and published on these topics it tended to stay within the established national security framework for the most part, but occasionally there would be challenges to the "material capabilities as well as state-centric assumptions"

(Buzan & Hansen, 2009, p.2) of the mainstream. Doing so allowed for scholars to explore ideas of security for objects other than the state, which continued to broaden international security studies, which in turn allowed further exploration of other ideas. It has opened up the field to a number of separate, yet interconnected flows of literature. These adjacent concepts are where human security falls, and it allows the central theme of security to continue to expand. Human security is certainly distinct from some of the other sectors of security studies, but it still holds a number of similarities that should not be ignored when evaluating it.

Human Security Studies

Similar to security studies as a whole, human security does not have a perfectly traceable timeline to follow how it has progressed as time passes (Christie & Acharya, 2008). There is some disagreement in the academic community as to where exactly human security draws its roots from (Christie & Acharya, 2008). Many academics have traced its origins to the early 1990s, around the time that international peacebuilding efforts began to be popularized as a way to intervene in conflicts (Christie & Acharya, 2008). Others looked at roots that emerged from the Brandt Report in the 1980s, and the emergence of narratives focused around human-centered development that arose as a result (Christie & Acharya, 2008). Some even go back to the peace studies of the 1970s and how the literature evaluated ideas like positive and negative peace that helped play a role in bringing development to the forefront (Christie & Acharya, 2008). Their roots are varied, and arguments for each of those origins present strong options.

While all of these options could be realistic precursors to the development of the concept, the United Nations receives credit for codifying human security in 1994 (Buzan & Hansen, 2009). The United Nations Development Program took a significant step forward in the field when they released their 1994 Human Development Report, which fully introduced the concept of human security, defining the borders of the field and offering an outline for how to approach global security through the human lens (Buzan & Hansen, 2009). They were able to expand their working definition of security beyond traditional security ideas like defending territory, nuclear deterrence and other national interests (Buzan & Hansen, 2009). Instead, they also began to introduce “universal concerns”, such as the eradication of poverty, or to rectify issues of underdevelopment.

Buzan & Hansen (2009) explain how the “referent object”, or the focus of the field, shifts away from nation-states to instead focus on people. National security concerns were not forgotten entirely, but the priority became addressing threats at an individual scale. How can governments and organizations work to ensure that people are able to live in peace, with access to resources and opportunities that might not have been afforded to them in their prior situation.

In their 1994 report, the United Nations discussed how human security has two main aspects: safety from chronic threats and protection from sudden disruptions to the patterns of daily living (United Nations Development Programme, 1994). The UNDP has acknowledged that this was a broad categorization, and that the list of threats to human security is long (United Nations Development Programme, 1994). However, they also offer some main categories to sort threats by. These categories include economic security, health security, personal and communal security and more (United Nations Development Programme, 1994). The UNDP views the broad nature of threat categorization as a benefit, as it allows for more threats to fall under the purview of the field.

Human security is certainly not a field without debate, and some critics believe the expansive nature of the field is a detriment. It has been attacked for being politically and academically vacuous, including far too many options for it to be meaningful in any way (Owen, 2004). Critics believe that narrowing the focus of human security is a pragmatic move that allows for a more rigorous analytical understanding, which in turn will build clarity for the field (Owen, 2004). These critics believe that human security is the natural progression of security studies, but that the broad nature of the field needs

to be refined for it to take center stage in world politics (Owen, 2004). Another criticism that some scholars bring up is the idea that large scale human security threats can only be addressed with the power of a nation-state, and as such, human security needs should come second (Owen, 2004). They argue the most powerful tool in defense of human security is the state, and state security should be prioritized because of that fact (Schewe, 2022). Human security experts do not get rid of the idea that large scale threats to security exist. Governments and policymakers still play the primary role in trying to protect their countries from security threats, either through national defense, providing aid and public goods, or more. However, human security experts tend to focus on trying to protect what the LSE refers to as the “security of small things” (London School of Economics and Political Science, 2020, p.2). Insecurities that an individual and their family might be facing, that a village might be facing, that local communities might be facing, those are the insecurities that human security seeks to resolve in order to provide them with the opportunity to live a life with freedom and basic dignities. National security might help to facilitate this, but it is not the ultimate goal to be achieved.

While there isn't a consensus as to WHEN human security emerged, there is a general agreement as to WHY human security emerged: continued growth after an initial repudiation of traditional state-centric security practices, and a budding normalcy about encouraging human development in the global south (Christie & Acharya, 2008). It represents an integration of security and development practices, allowing for contrasting matters of insecurity to come together under the same umbrella. For many,

the traditional state-based security paradigm is completely failing to protect what states are composed of: people. Human security aims to rectify that mistake (Owen, 2004).

When thinking about human security, a quote by former U.N. Secretary General Kofi Annan offers a lot of insight on the subject as a whole. In a speech acknowledging an international workshop on human security being held in Mongolia, Annan stated:

“Human security, in its broadest sense, embraces far more than the absence of violent conflict. It encompasses human rights, good governance, access to education and health care and ensuring that each individual has opportunities and choices to fulfill his or her potential.” (Annan, 2000) (London School of Economics and Political Science, 2020, p. 1)

This quote is able to boil down human security to its fundamentals. As a field, it takes its focus beyond topics like peace studies and strategy, as the end of violent conflict is not the answer for the questions it poses. Instead, human security aims to go deeper, and understand security at the level of individual people. It delves beneath national security concerns, and looks at the insecurities, needs and risks faced by those living and experiencing crisis or conflict (London School of Economics and Political Science, 2020).

Earlier in this paper, I stated how security studies historically have focused on the “big picture”, because that was where the biggest priorities for policymakers or academics existed. Taking action in enacting international strategy, coordinating military action or planning for national security required a broader focus from the field. That broad focus is the only way that concepts like national security can be studied, engaged

with and maintained. Human security aims to flip that concept on its head (London School of Economics and Political Science, 2020), engaging with the small groups that make up the vital pieces of a society along with the government in order to allow every person to lead bearable lives, which in turn creates the sense of security that national security scholars are constantly in pursuit of.

In order for human security to truly tackle global inequalities and inequities, a nation must combine human security focuses with their policy objectives as well. In fact, some nation-states have adopted human security focuses to become the backbone of their foreign policy. Countries like Norway, Japan and Canada have adopted a human security lens when viewing their foreign policy objectives, and it has changed the way foreign policy is developed, and how it is enacted as well (Buzan & Hansen, 2009). Some scholars believe that Japan has an opportunity to demonstrate the true value of human security in foreign policy, because Japan is a nation with extremely limited force capabilities, and instead must explore alternative paths to influence the world around them.

An important but traditionally under examined factor that affects human security is technology. The following sections of this paper dive deeper into a single specific example of this: drone technology. By exploring how drones thrive in the traditional security environment, but have created negative impacts when examined through a human security lens. Once drone technology has been explored, this paper will also provide avenues to address potential future human security violations before they occur, offering policy based solutions to a real world issue.

Drones in Traditional Security

Drones, sometimes referred to as unmanned aerial vehicles (UAVs) or are generally defined as aerial vehicles that do not carry human operators or passengers, either flying independently or being piloted remotely (“Unmanned Aerial Vehicle,” 2005). Drones have become increasingly ever-present in government and civilian use, and are certainly popular tools in the modern policy environment (Suhrke, 2019). While drones also offer a number of useful civilian applications, and have become more widely available for civilian use, this paper will be focused primarily on government uses of drones and their subsequent impact on human security. It should be noted that this paper will primarily focus on the government use of drones. While civilian use of drones can also have impacts on human security, it is government use of drones that has the potential for wide scale impacts on individuals as well as larger communities due to governments having more available resources as well as a coordinated direction of policy to create impact, either purposefully or coincidentally.

Drones can be armed or unarmed, which is often the primary differentiator in purpose. Unarmed drones can be used for a variety of purposes, such as mapping, scientific research, surveillance and monitoring and more (Ip, 2022). While armed drones can also be used for a variety of purposes, their very nature is to be a precise stealth weapon, allowing their wielder to strike at targets safely, without fear of immediate danger or retaliation (Suhrke, 2019). Drones used for military and government applications generally range from mid-sized equipment that could also be commercially available, versus larger military-specific drones requiring more substantial infrastructure to support and utilize (Sayler, 2015). All sizes and most variations have

the potential to be armed, either by loading explosives or hazardous materials and acting as a small missile, or with releasable bombs and missiles capable of being remotely guided (Sayler, 2015). This paper will focus on the use of armed drones and their impact on human security.

Drones have been modified and improved in order to be able to fit increasingly sophisticated technology, expanding their capabilities and usefulness to potential users (Sayler, 2015). Drone technology has proliferated across the globe at an incredible speed, and often in combination with technological developments that make them more efficient to operate: longer flight times without refueling, increasing remote control or travel ranges, or even increasing the range of data transfers (Suhrke, 2019). The United States military began the adoption of what are recognized as modern UAVs in the Vietnam War, and by the start of the 21st century, they have become essential assets to a number of militaries around the globe. Over 90 nations and non-state actors operate drones today, with more than 30 countries either developing and/or operating armed drones as well (Sayler, 2015). The list of actors acquiring and producing armed drones has grown rapidly. Along with this, armed drones have become readily available on the international market to a number of potential buyers (Suhrke, 2019). All actors recognize the traditional security benefits that drones bring for national security objectives, and as such, they are often highly sought after, either encouraging increased domestic production of drones, or having actors look to foreign exports in order to meet their needs.

In the traditional security perspective of nation-states, drones seem to be a boon from their respective higher powers. Drone technology permits “quick, safe and

increasingly efficient interventions” (Suhrke, 2019, p. 1) in a number of different sectors. Instead of relying on the ability of human forces to adapt to different mission parameters, governments can use drones as a suitable replacement (Suhrke, 2019). They have been seen as an important force multiplier since their modernization, and have been able to chalk up a number of military successes under their belt. Israel has used them to great success as early as 1973 (Tice, 1991), and the United States has heavily involved drones in a number of their warfighting operations, especially in the Global War on Terrorism (Ip, 2022). The Department of Defense is one of the biggest users of drone technology in military missions, relying on data driven analysis before, during and even after conducting operations. They also use armed drones to target threats and objectives, avoiding putting troops in harm's way while still being able to directly engage with enemy combatants (Ip, 2022).

Drones have rapidly become a popular tool because of the fact that they are able to do any jobs that might be too “dull, dirty or dangerous” for humans to do (Tice, 1991, p. 2). Captain Tice (1991) explains how missions that call for extreme endurance, conditions or threats are the ideal environment for drones, because manned missions would pose too great of a risk to operator safety. In contrast, losses of drones at high levels are much more acceptable than the loss of a comparable manned aircraft (Tice, 1991). For a number of reasons, the total cost of replacing a drone is significantly easier to stomach for policymakers or strategists than it would be to replace highly trained and specialized human operators. The biggest reason clearly being that the loss of an object is much more bearable than the loss of a person, regardless of the difference in production price. A loss of a drone does not mean a military casualty, and in some

cases drones are cheaper to replace than human operators. Along with that, improvements in industrial processes have decreased the production time of even the most technologically advanced drones, meaning that a new drone can be back in the fight much faster than it would take to train a human to the equivalent skill level of the fallen operator. Because of this, the loss of a drone, while incredibly expensive, is equivalent to the loss of any tool, like losing a rifle or a hammer. The expertise of the drone operator can be used with another drone, but the expertise of a human operator is lost once they have been lost. Along with that, drones provide a level of reach and precision that has not been seen before. American use of drones have reinforced this by targeting high level officials in other nations (Kumar, 2020). While this course of action might be questionable based on international law, it certainly demonstrates the power and reach of armed drones employed by the United States military.

Because of the obvious benefits of non-human resources working at objectives, and the increase in global availability of drone technology, a number of state and non-state actors have continued to pursue drone technology in order to bolster their security objectives. This paper has briefly touched on how the United States government uses drones in military engagements as well as domestic objectives, but the proliferation of drones has been a global phenomenon, especially after the Global War on Terror created the image of drones being one of the most iconic weapons of war in the modern day (Atherton, 2023) (Saylor, 2015). Drones have certainly changed the way that wars have been conducted, often being acknowledged as the tip of the spear in the progression towards full military robotics and automated warfare (Kumar, 2020). This shift in warfare has been seen as recently as the Ukraine War in 2022, as drones

have been able to create some form of parity for smaller nations in conflict (Atherton, 2023).

As stated previously, there are nearly 90 nations that possess some form of drones, using them to conduct surveillance, reconnaissance and other military operations such as targeted strikes. Countries continue to pursue ever advancing drone technologies, with research showing that factors like security threats like territorial disputes and terrorism play a factor, but are not the only factor (Schwartz et al., 2022). Factors like governing styles and the actors' technological capacity also play a role in the amount and type of drones that a country will obtain, but Schwartz et al. (2022) explains that a surging interest in drones has persisted throughout the international security environment.

While the current international security environment encourages drones, governments and militaries are also able to justify the costs of obtaining drones because China has been able to produce and supply drones to a number of countries at a lower cost than the United States has been offering, with similar capabilities (Rasheed, 2023). While the United States still leads the global market in the export of surveillance drones, China has been working to catch up in the armed drone market. In the last decade, China has delivered nearly 300 combat drones to 17 different countries, leading the world in weaponized aircraft exports (Rasheed, 2023). In contrast, the United States has only delivered 12 combat drones, all of which have gone to France or the United Kingdom (Rasheed, 2023). With the preexisting geopolitical rivalries between China and the United States, any ramp up in drone production and exports from one side will show face as a security threat to the other actor, which

subsequently invites increased production as a method to defend themselves and their allies.

Along with global superpowers like the United States and China offering drone production and exports, the advent of cheaper and commercially available technology allows other countries to manufacture cheaper counterparts. For example, Turkey has produced the Bayraktar TB2 drone as a widely available alternative without the same export restrictions, which has seen action in situations like the Nagorno-Karabakh War, the Ukraine War and other asymmetric conflicts (Atherton, 2023). These drones are able to fill a void in the existing arms market that the U.S government has created with their export ban of Predator drones (Atherton, 2023). The Turkish alternative is significantly cheaper as well, costing only 5 million dollars to produce, as opposed to the 23 million dollar price tag on U.S reaper drones (Atherton, 2023). The Turkish TB2 is one of many examples of cheaper, commercially available drone technology used in combat theaters, with smaller states using them to fight with similar air capabilities that were previously limited to huge military powers (Atherton, 2023). The appeal of drones in a traditional security environment is obvious, providing a number of advantages without any of the traditional military drawbacks, as well as with a variety in price tags that nation-states can pick and choose from to meet their needs.

This global proliferation also leads to regional security issues as microcosms of security issues because of the presence of armed or unarmed drones (Rasheed, 2023). China has, and will continue to export drones to nations that could not afford or are not allowed to purchase U.S drones for whatever reason (Rasheed, 2023). For example, Chinese arms exports in South Asia have created a security dilemma in the region,

potentially aggravating previously existing tensions between nations in the region (Kumar, 2020): Pakistan has purchased over 50 armed drones from China, and India has agreed to a pact with the United States to purchase more than 30 Predator drones. India and Pakistan relations have always been tense, and an increased presence of armed drones can lead to an escalation in tensions (Kumar, 2020). Pakistan has claimed that their purchase of the drones was because they wanted to bolster their anti-terrorist operations. But for Indian policymakers and strategists, there is no guarantee for them that Pakistani armed drones will not be used in any conflicts between each other, and vice versa for Pakistani strategists. In a traditional security environment, this creates a security dilemma on both sides of the conflict. Pakistan obtains more drones with the aims of bolstering national security and defense, but India has no way of guaranteeing that those drones would only be used in self defense. As a result, India begins to pursue their own combat drones in order to bolster their national defense, which in turn would threaten Pakistan, as they also have no guarantee that India will only use those weapons for defense purposes. If left unchecked, the situation spirals, leading to a classic security dilemma.

Drones in Human Security

This paper has made it exceptionally clear how drone technology has been advantaged by the international security environment, but drones present an entirely different set of issues when evaluated through human security ideals. In the same MIT technology review that explained how cheaper, commercially produced drones have brought a sense of parity to the battlefield, the author provides a poignant insight into the human cost that drones also generate. (Atherton, 2023) discussed how drones might be spoken about in clinical terms, such as missiles being used to stop vehicles, but that this should not hide their true effect on people. Atherton states:

“...What happens when that explosive force hits human bodies is visceral, tragic. It encompasses all the horrors of war, with the added voyeurism of an unblinking camera whose video feed is monitored by a participant in the attack who is often dozens, if not thousands, of miles away.” (Atherton, 2023)

As drones become more and more commonplace in conflict and war, and powerful and weaker actors increasingly use them for tasks from reconnaissance, surveillance, and combat maneuvers, their potential for overuse, misuse and other dangers skyrocket. For example, Atherton (2023) touches on how larger powers will also utilize drones in their conventional warfare practices because of its obvious security advantages. After initial Ukrainian resistance to the Russian invasion, Russia began deploying Iranian built Shahed-136 drones against Ukrainian civilians as part of a terror/sabotage campaign (Atherton, 2023). Those drones are extremely cheap to

manufacture, costing around \$20,000 to make and even using commercial parts from U.S corporations. They are able to be self-detonated and Russia launches them in salvos against civilians and military alike. While Ukrainian air defenses have been able to intercept some of these drones, many have been able to hit their targets and cause a number of injuries and/or casualties (Atherton, 2023). Russian forces have claimed that this was an inexpensive way to wear down Ukrainian air defenses, as intercepting the Russian drones with a higher cost missile incurs a negative cost on the Ukrainian defenders (Atherton, 2023). However, there have still been civilian casualties as a result of the use of these drones, a blatant infringement on some of the most basic principles of human security.

These types of security issues are not unique to the Ukraine conflict by any means. In fact, some human security scholars believe that these issues are endemic to the use of any type of drones in any type of conflict: armed or unarmed drones being used in conflicts ranging from peacekeeping missions to great power war will have negative impacts on human security outcomes. Suhrke (2019) believes that there are problematic characteristics that all armed drones have, all of which have negative effects on human security. Interestingly, and perhaps unsurprisingly, the tactical advantages that armed drones can bring to a traditional security environment are emblematic of what issues armed drones create for a human security environment. Suhrke (2019) cites military overuse, violations of international laws and norms, and continued global proliferation of drone technology as the three most problematic features of armed drones, arguing that all of these issues have been exhibited by armed drones throughout any conflict they have been employed in. This paper will describe

and address these problematic features to see how they impact human security, beginning with the idea that armed drones are more likely to invite military intervention because of their relative advantages compared to other forms of fighting.

A number of security scholars across a variety of disciplines agree that drones act as a form of “technological enablers” (Suhrke, 2019) for armed intervention, because their advanced technology provides unbelievable opportunities for targeted operations with minimal repercussions to those who carry them out. As a tool, they provide tremendous advantages for any aggressor, and as such, become a much more attractive option than harder to achieve alternatives. For one, readying, deploying and operating a drone for any operation is significantly easier to do, and can be done for longer periods of time (Ogburn, 2020). Drones can be operated remotely, and only need to be deployed within their range to meet their target: For instance, the MQ-9A Reaper has a reported airtime of more than 27 hours, and a range of nearly 1,900 kilometers depending on the payload the drone is carrying (*MQ-9A Reaper (Predator B)*). A Reaper can be in the air for 27 hours providing overwatch, gathering surveillance and intelligence data to send back to command, and even striking at targets if configured to do so (Sundby, 2023). No human being can hope to match that kind of short-term endurance: human operators might be able to stay in the field for longer, but drones do not need to eat, sleep or take bathroom breaks. Even if a drone needs to be remotely piloted, human operators can take shifts, keeping the drone in service with the help of multiple people who might be hundreds or thousands of miles away.

This leads into one of the biggest reasons why armed drones incentivize use of force and military, the idea that drones can circumvent casualty averse behavior from

domestic actors, and can unfairly shift the burden of warfare onto foreign populations (Walsh & Schulzke, 2016). While preventing casualties is not the only decision criteria for legislators and military leadership, the goal of conserving human lives (even if the only lives you wish to save are those of your population) will always raise the stakes of declaring war or undertaking certain courses of action during periods of conflict. The risk to military personnel and civilians alike must be considered when making these decisions. With drones, this risk of casualties is almost totally nullified, at least on the side of the aggressors (Kreps & Kaag, 2012). Without these risks to hold aggressive action at bay, both military and civilian leadership might lose the understanding of the consequences of war and conflict (Kreps & Kaag, 2012). The empirical benefits of using armed drones would outweigh the ethical principles that traditionally guided decision-making processes in regards to war and conflict. Armed interventions suddenly become an effective solution for any number of problems, including complex political disputes that could be solved with more peaceful means, because waging war with armed drones is significantly cheaper and more efficient (Kreps & Kaag, 2012). Why should any nation (or political actor for that matter) decide to engage in negotiations with the opposition, when a drone can quickly eliminate opposition leaders and key figures from 50,000 feet in the air (Suhrke, 2019). Armed drones and their ability to justify military action create the proverbial hammer, where every problem now looks like a nail to be pummeled into submission. Kreps and Kaag (2012) worry about the incentive structure that guides political decision making when it comes to conflict. Drones would be incredibly attractive to hawkish politicians who stand to benefit from waging war to achieve foreign policy objectives, but can not afford to commit to a much

more costly traditional war (Walsh & Schulzke, 2016). Because drone mobilization requires much less political capital to begin their operations, the barrier to enter into armed conflict is reduced significantly (Suhrke, 2019).

A shining example of this would be the United States use of armed drone strikes during the Global War on Terror. The United States relied heavily on drone strikes in order to conduct “decapitation strikes” against terrorist organization leadership, believing that the forceful removal of violent leadership from these organizations would be the most efficient form of counterterrorism (Jordan, 2019). The administration at the time used a variety of justifications, both to their foreign contemporaries and the American public, to explain why armed drone strikes were necessary.

These strikes were a central feature of U.S counterterrorism policy, and were heavily utilized outside of the conflict zones of Iraq and Afghanistan in order to target potential threats. From 2004 to 2014, there were more than 450 drone strikes conducted away from Afghanistan and Iraq, in countries that were not directly involved with the war on terrorism (Kreps, 2014). While debates raged among scholars on the legality or ethics of these strikes, public support for armed drones remained high because of the Obama administration’s strategies. President Barack Obama even stated in May of 2013 that legislators and military strategists have viewed armed drones as a “cure-all for terrorism”, because of their low risk factor and political advantageousness (Kreps, 2014)(Koeber, 2013). The Obama administration had seen how the Bush administration had received negative political attention for detention programs like the one in Guantanamo Bay, and understood that they could avoid the serious issues that came with capturing, transporting and providing for prisoners by

simply executing them via armed drone strikes. This removed the need for human deployments to hot zones, and the subsequent risks they undertook in order to capture high value targets. Eliminating suggested terrorist threats through drones was a far more feasible option, especially in order to maintain public approval (Koeber, 2013).

Obama is quoted as saying:

“The very precision of drone strikes, and the necessary secrecy involved in such actions can end up shielding our government from the public scrutiny that a troop deployment invites.” (Koeber, 2013)

The Obama administration understood that the public visibility of drone strikes was significantly lower than the deployment of human personnel, and used that as a justification for employing drones to achieve policy objectives, stating that the physical presence of troops would not lessen civilian casualties or build goodwill within target populations (Koeber, 2013). Instead, the physical presence of soldiers would invite “more U.S deaths, more Black Hawks down, more confrontations... and could easily escalate into new wars” (Koeber, 2013). One thing to point out in that quote as well, is the idea of “necessary secrecy” to conduct drone strikes (Koeber, 2013). There is little to no oversight guiding these operations within the bureaucratic structures that authorize them, and there is especially no oversight from the public, meaning there is also little possibility of receiving any timely backlash (Kreps, 2014), meaning these actions can be taken with the expectation that those approving them will face no repercussions in the short term. There is also little to no mention of the loss of civilian

lives foreign populations were experiencing, and that these drone strikes were often being conducted in nations that the U.S was not actively engaged with, such as Mali, Pakistan and Yemen, subjecting noncombatants in an entirely different country to risk and danger in order to achieve policy objectives (Kreps, 2014). President Obama also cited how conventional munitions were far more dangerous to civilians, and thus more likely to cause outrage (Koeber, 2013). In the interview, President Obama did not make a single mention of moving away from violent solutions to the problems of international terrorism, but instead created the comparison between drone strikes and human personnel or conventional arms to demonstrate that the government was committed to the lesser evil of all the available options.

Scholars fear that the efficiency that drones bring would result in more wars and conflicts, which in turn means higher casualty counts, increased environmental degradation and destruction, continued social and political disruption in areas of conflict and more (Walsh & Schulzke, 2016). The destructive nature of war, and the cost it inflicts on all participants, has always acted as one form of deterrent to engaging in it. With the proliferation of armed drones and their numerous advantages, waging war and engaging in military conflict becomes far easier to justify, both domestically and internationally (Walsh & Schulzke, 2016). War ceases to become a tool of last resort and instead becomes an efficient and cheap solution to foreign policy problems (Walsh & Schulzke, 2016). Nonviolent or diplomatic solutions become unfashionable, as any resources dedicated to those avenues could be used in other ways that don't require compromise and communication. Executions of people thousands of miles away could be authorized with the flick of a finger, and the consequences would be negligible.

While the way drones are used is emblematic of the dangers of encouraging the overuse of military force, with that encouragement of conflict representing a threat to human security, that is not the only way drones contravene basic principles of human rights. Because drones are often described using terms like “pinpoint” or “surgical”, people are conditioned to believe drones are precise and accurate weapons, which creates false justifications for their use in armed conflicts, resulting in civilian casualties, false targeting and other violations of international humanitarian laws. This can be seen in President Obama’s justification of the United States use of armed drones in the war on terror, where drones are the best alternative when compared to conventional munitions and tactics, yet drones still create civilian casualties in large numbers.

Some scholars argue that armed drones violate international humanitarian principles and human security principles. Critics point out the idea that drone strikes can be characterized as “extra-judicial executions” (Suhrke, 2019), because of the fact that they cause civilian casualties that violate international principles like proportionality and distinction (Suhrke, 2014). The next sections of this paper will address this claim.

International humanitarian law dictates that its principles are automatically applied when an armed conflict exists (Melzer, 2013). Under these principles of armed conflict, and the subsequent humanitarian law, armed drones are permitted for use against military targets (Melzer, 2013). These are the principles that nations like the United States argue their use of drone strikes fall under, because they are only targeting legitimate military targets as justified by the “law of hostilities” arising from international humanitarian law (Melzer, 2013). However, the law of hostilities does not grant actors

free reign to target anyone they believe are legitimate military targets, there are still some precautions that must be taken and guidelines that must be followed.

For example, international humanitarian law strongly encourages protecting civilians and noncombatants at every available opportunity. Civilians are never allowed to be the focus of an attack, and any means of attack should be able to differentiate between legitimate opponent combatants and civilian populations (Melzer, 2013). In maintaining the principle of distinction, attacks must also take precautions to avoid false targeting and collateral damage of civilians. Legitimate military targets must be clearly defined as being different from civilians and noncombatants in order to fully justify their targeting, and this principle is the same for any military operation that might take place.

This is the principle of distinction that Heller (2013) and Suhrke (2019) explains drones are not able to fulfill. Because drones have technology that is designed to make them ultra precise, efficient, “smart” weapons, they seem to be the ideal tool for preventing collateral damage like civilian casualties and false targeting. However, real world experience with drones has continually demonstrated the shortcomings in trying to stay consistent to international human rights principles (Suhrke, 2019) The use of armed drones has consistently presented a number of different issues in trying to maintain their legality and some semblance of human rights. This includes issues on the technology side and issues created by decision makers in the deployment and use of drones: unforeseen civilian casualties, incomplete target knowledge and improper target recognition.

Drones can also be considered violations of sovereign territory, which itself is another violation of international law. Drone technology allows users to metaphorically

extend their reach anywhere around the world, allowing them to strike anywhere they see fit (Suhrke, 2019). Suddenly, any person anywhere around the world becomes a reachable target. This blurs the lines of the traditional battlefield or warzone, which have different interpretations of international laws (Suhrke, 2019). Earlier in this paper, I presented a statistic of 450 armed drone strikes conducted by the U.S to emphasize how drone technology supports increases in armed conflict and reduces barriers to war. It is important to note that those 450 strikes were conducted in regions outside what the U.S refers to as “areas of active hostilities” (Suhrke, 2019).

American leadership justified these extraneous strikes by saying they were simply targeting terrorist actors (Koebler, 2013), and that their ability to properly fight terrorists would be infringed if they were limited to pre-existing borders. This military overreach can be considered a violation of one of the basic principles of human security, the right to exist with dignity and free of fear (United Nations Development Programme, 1994). It is a reasonable expectation that in a person's day to day life, they should not have to go about their business worried that a drone strike will end their life, or end the lives of their family. The claim that drones are extremely precise in their targeting is not enough to assuage these fears. Just because a drone is able to strike at a target with perfect accuracy from 50,000 feet in the air does not ensure perfect knowledge of their target. Drone strikes have occurred where there has been no guarantee whatsoever that the operator controlling the drone or even the chain of command approving the drone strike has full confidence that their target is a member of a terrorist organization.

One of the biggest points scholars bring up when discussing how drones violate human security concepts is the number of civilian and non combatant casualties that drones are responsible for. This is one of the most widely criticized parts of drone warfare, not just in the realm of human security, but in any conversation in which drones are brought up (Rogers, 2014). Traditional security experts assume that the positives of drones, like their endurance and their accuracy, would allow for any undertaken military operations to reduce the potential of unwanted results such as service members killed in action, or civilian casualties and collateral damage (Rogers, 2014). This belief is why drones have been so attractive to military decision makers this century: they seem to be the tip of the spear leading to the next generation of warfighting technology (Rogers, 2014). However, there has been consistent evidence across a number of theaters that drones are not nearly as humanitarian as they are made out to be by supporters. Yet, this has not stopped states like the United States or Israel from continuing to employ drones in their military objectives, especially relying on “small, highly discriminating attacks” to achieve their goals (Rogers, 2014). For example, throughout U.S counter-terrorism operations, drone strikes have caused a significant loss of civilian life in countries where they were not directly operating. From 2004 to October of 2014, it was estimated that around 416 to 957 civilians were killed in Pakistan’s FATA region as a result of the drone strikes (Rogers, 2014). For some clarification, the statistics on civilian deaths are given in such a wide range because it is extremely difficult to collect data from impacted areas, for a variety of reasons (Suhrke, 2014). Scholars and news sources are reliant on government published data, which can vary depending on who is reporting the statistics, who is the aggressed or the aggressor, and if there are any third

party verifications conducted by international watchdog organizations. For example, official US intelligence sources estimated a mortality rate in the period of 2009-2015 to be 1 civilian death for every 22 to 37 combatants killed, while the Bureau of Investigative Journalism found the rate to be closer to 1 civilian death for every 7 combatants killed (Suhrke, 2014). Government officials have an incentive to estimate civilian casualties on the low side, in order to be able to classify their drone operations as advanced, and claim they are protecting civilian lives.

Nearly a thousand civilian deaths in the name of fighting terrorism can be seen as a human security failure for a number of reasons. The right to life is one of the most basic human rights, and losing a life by a drone controlled by a foreign state certainly violates basic human rights principles. The direct cost of human lives is one of the biggest reasons this can be considered a human security failure, but the indirect impacts also are a part of the problem (Aslam, 2014). Scholars bring up the idea that drones create a scattering effect for terrorists (Aslam, 2014). Fear of being caught in a drone strike has caused terrorists to flee the heavily targeted northwestern tribal regions to hide in the crowds of more populated cities, such as Karachi (Ali, 2010). These relocated terrorists do not change their agenda however, instead they shift their targets to local Pakistanis (Aslam, 2014). Cities saw an uptick in religious violence, kidnapping, drugs and arms smuggling as drone strikes began to chase terrorists into population centers (Aslam, 2014). Inflicting this kind of harm on a civilian population, even indirectly, does not allow Pakistani citizens to live with the kind of freedoms that human security strives for. There is also a fear that these drones have created a radicalizing effect in Pakistan because of the collateral damage and civilian deaths, especially in the

court of public opinion (Aslam, 2014)(Ali, 2010). This would obviously be very disadvantageous in counter-terrorism efforts, but is something that could be a very real threat. This contravenes another tenet of human security, which is empowerment and freedom of choice (United Nations Development Programme & Human Development Report Office, 2022). While drones do not directly force people into supporting terrorist organizations, the consequences of drone strikes seem to take away the kind of agency and choice that human security constantly encourages.

While this paper has primarily used examples from the United States and the global war on terror to address the human security concerns of using armed drones in conflict, it should be noted that the United States is not the only nation that utilizes drone technology. For example, Israel is another nation that depends very heavily on armed drones in military operations, and have been some of the earliest adopters of drone technology (Kreis, 1990). In fact, Israel has had drones being employed in some military capacity since the 1970's, using them for reconnaissance and as decoys during the Yom Kippur War (Kreis, 1990). Drones directly involved in combat operations began around 1982, with Israel in conflict against Syria in that time period (Kreis, 1990). Since then, Israel has continued to use drones in their military operations.

Unfortunately, Israeli drone operations have not escaped the criticisms that American drone operations have gone through, especially in the 21st century. Israeli drone operations have continued with the incredibly disheartening trend of violating international humanitarian law, causing immense collateral damage and injuring and killing thousands of innocent civilians (Rogers, 2014). In Operation Protective Edge, Israel undertook military action in the name of stopping Hamas from firing rockets from

Gaza into Israel-held territory (Rogers, 2014) Armed drones were used heavily in the 2 months that Operation Protective Edge took place, resulting in inconceivable levels of death and destruction (*2014 Gaza Conflict*, 2015). Over 11,231 Palestinians were injured during the conflict, including more than 3,500 women and 3,400 children (*2014 Gaza Conflict*, 2015). The death toll was unbelievable as well, with more than 2100 Palestinians killed (*2014 Gaza Conflict*, 2015). Data varies as to what percentage of deaths were civilian casualties, but a few numbers have stood out. By Israel's own data, they cited that 53% of the deaths were civilians (Rogers, 2014). The United Nations disagreed with this total, citing a civilian casualty rate closer to 70%, including around 550 children and 300 women being killed in the attacks (*2014 Gaza Conflict*, 2015). Not only is this a violation of human security principles, but this more broadly can be looked at as a violation of international humanitarian laws as well. Schools, health centers, and even United Nations installations were all destroyed with the goal of protecting Israeli life, and the government was celebrated for it by their press and other foreign leaders. Incredibly, but perhaps not surprisingly, General Martin Dempsey, the Chairman of the Joint Chiefs of Staff at the time, praised Israel for their efforts to avoid collateral damage. The Joint Chiefs even went so far as to send a team to Israel to collaborate with the IDF in order to see what they could learn from them.

During and after this conflict, Israel continued to emphasize that they were using the most advanced technology available to “minimize collateral damage to civilians” and “target only legitimate military objectives” (Israel Ministry of Foreign Affairs, 2014). Drones and other UAVs continue to remain a vital part of Israeli military operations, with significant portions of the rationale being that it safeguards civilians much better than

they could do so previously. It is mind boggling that drones are touted as being able to reduce this kind of collateral damage, all the while battlefield statistics are telling an entirely different story.

One final point about drones that this paper will touch on is the issue of target selection, which *so far* has been a human endeavor (more on the human aspect later). Because drones boast incredible distance capabilities and precise targeting systems, choosing who to target becomes a process that does not always offer the correct results. Take the idea of “signature strikes”, a form of target identification employed by the CIA in their drone operations. These drone attacks would target individuals who exhibited characteristics that were associated with terrorist activity (Heller, 2013). Drone attacks could be launched based on suspected connections to terror organizations, and personal characteristics. Personal characteristics can be as broad as being a military aged male existing in an area with known terrorist activity (Heller, 2013). The U.S used the logic that any people in the same area as known terrorists probably are participating in nefarious activities (Heller, 2013). However, that kind of inference is simply not acceptable when it comes to making decisions that cost people their lives. These kinds of strikes are completely removed from the humanitarian principles of distinction, and the logic behind the criteria is certainly not enough proof to justify ending a human life. Signature strikes have most certainly led to the death of civilians, only for the U.S government to metaphorically shrug it off and move to the next target (Heller, 2013). For any civilian living in a region with terrorist activity, they not only had to fear terrorists, but had to fear losing their life because they were suspected of being one. When these strikes are conducted, there is evidence that the drone operator does not even have

confirmation of the identity of their target. The trigger is being pulled on an “educated” guess, based on shaky evidence and bias. These kinds of targeting procedures damage the credibility of drones being precision killing machines designed to minimize civilian casualties (Heller, 2013). While drones might be able to target a single person from 50,000 feet in the air, what good does that do if the person they are targeting is a civilian. The U.S insists that their signature strikes practice meets international humanitarian legal standards, but a number of scholars have shown that these strikes have been conducted on unlawful grounds, with insufficient evidence to justify their targeting practices (Heller, 2013). They contravene the basic principles of human security, the basic principles of human rights and humanitarian law, putting civilians in the direct line of fire and killing them solely based on suspicion.

These dangerous targeting practices have been seen in Israeli drone operations as well. While their targeting practices are not made clear to the public, it is obvious that there is a significant process that goes into how the IDF selects their targets (Rogers, 2014).

The NGO Human Rights Watch led an investigation into Israeli drone use, and found that the IDF certainly had the necessary precision technology to avoid killing civilians (“Gaza Civilians Killed by Israeli Drone-Launched Missiles,” 2009): their drones had “advanced visual capabilities” and could hang around the conflict zone for hours on end, gathering data (“Gaza Civilians Killed by Israeli Drone-Launched Missiles,” 2009). This meant there was certainly enough time taken, and information collected, to ensure that any drone operators working under proper procedure and care would have been able to differentiate between proper targets and civilians or bystanders. So why were

there such high numbers of civilian casualties in IDF drone operations? The HRW found that there were multiple cases where the IDF had “repeatedly failed to verify that its targets constituted military objectives.” (“Gaza Civilians Killed by Israeli Drone-Launched Missiles,” 2009). This signifies that the drone operator would have had ample time to ensure they were not aiming at civilians, but did not take proper care to avoid collateral damage before firing. It exhibits a form of disregard for humanitarian norms, as well as a disconnect between the statements being made by the IDF and the Israeli government, and the actions they have taken.

Policy Changes to Safeguard Human Security

As much as Israel has claimed they are doing everything in their power to fight with humanitarian intent and to protect civilians, independent verification has proven the opposite is true on a number of occasions. And as this paper has demonstrated, Israel is not alone in experiencing these human security lapses throughout their drone operations. The United States has contributed more than their fair share of human rights violations, through their drone operations conducting strikes outside areas of active conflict and with their signature strike program. Even with this type of track record, drones have rapidly become a staple in any state's arsenal, and non-state actors have been obtaining them as well. Yet, drones consistently have been championed as the humanitarian way to fight because as a technology they are best equipped to avoid collateral damage.

This then begs the question: what can be done to ensure these human security failures do not happen in the future? As drones continue to be proliferated around the globe and are continually included in combat strategy for nation-states and non-state actors alike, there must be a way to ensure that innocent individuals, families and communities do not have to bear the burden of trying to survive while killing machines roam the sky miles above their heads. It has been made clear that nations policing themselves and attempting to exhibit restraint has not been sufficient to protect civilians (Suhrke, 2019) and a more comprehensive solution must be explored.

The answer to this problem must be found in international policy efforts to build a legal foundation to protect human security. In order to best protect people, there needs to be a legal foundation that establishes a new set of norms in target selection and

drone use, provides guidelines for actions taken during drone operations including pulling the metaphorical trigger, and can enforce consequences when guidelines are not followed and human security has been violated. The focus of these policies should be in protecting the security and rights of individual civilians in conflict, ensuring that drone operations can still be undertaken, with more civilian safeguards in place. Vavrichek and Lewis (2016) evaluated U.S counterterrorism programs and offered some solutions to make U.S drone strikes fit within the boundaries defined by international humanitarian law. They discuss possibilities like having the military handle drone strikes instead of the CIA, or requiring approval from a “drone court” before undertaking strikes (Vavrichek & Lewis, 2016). Vavrichek and Lewis (2016) also explore the idea of a review process on drone strikes and their results in an effort to build an accountability process for drone strikes and those who call them in. Reviewing what went into planning a strike with the details of the aftermath could be extremely helpful for ensuring any collateral damage caused by undue actions, poor planning or any number of issues do not happen again.

In a perfect world, designed specifically to protect human security and the needs of the people, all of these measures could be implemented, with detailed review processes before and after each strike in order to ensure that no innocent civilians are at risk because of military action. However, that is not the world we live in. The main disadvantages of those policies is that they can have a direct impact on the effectiveness of the military and drone strikes, thus making them extremely difficult to justify implementing (Vavrichek & Lewis, 2016). Under the traditional security perspective that much of the world operates under, undertaking any of those measures would leave a country at a disadvantage militarily.

As such, I believe international organizations like the United Nations are one of the only avenues to developing regulations on drone strikes in order to protect civilians. By strengthening international norms, developing new accountability measures and creating a security environment that emphasizes avoiding any form of collateral damage, the United Nations can begin the move towards prioritizing human security for civilians around the world, especially those stuck living in conflict zones. The United Nations has been successful developing regulatory frameworks in the past, especially frameworks focusing on vulnerable populations (Suhrke, 2019). By adopting new policy in regards to drones and how they fit into a humanitarian legal framework, or evaluating and changing existing policy, international organizations can begin to create a world where civilians live free of the fear of dying by a drone strike.

Conclusion

Armed drones exhibit all the signs of being the future of warfare and conflict. With the promise of no risk to human soldiers operating them, and rapidly advancing technology, drones continue to proliferate across the world to state and non-state actors alike. Through the traditional security perspective, it is hard to argue against their benefits. Coming through with capabilities like extremely precise munitions and intelligence gathering tools, incredibly high endurance allowing them to stay on mission for days at a time, and much lower needs than any potential human counterparts, drones are the perfect tool for future conflict or war. They even boast a humanitarian aspect: with their advanced technology and firepower they can better protect civilians and avoid much more collateral damage than conventional military tactics and weapons. They seem to be the perfect tools to encourage human security around the world, even in conflict.

Yet in 21st century conflicts, drones have been one of the most deadly weapons against civilians and noncombatants when used in military operations, consistently violating the basic tenets of human security. The advantages that have many touting them as the tools of future wars are exactly how they've been so deadly to civilians. Drones make entering a conflict easier, and with less risk than deploying troops would entail. They become the metaphorical hammer in a world full of nails, discouraging nonviolent or diplomatic solutions in favor of a more efficient drone strike. And even precision targeting technology, they are reliant on human operators and intelligence to pull the trigger. Drone targeting practices have been shaky, with strikes being made with little to no intelligence of their targets, wildly inconsistent with international

humanitarianism principles. When mistakes are made, it is innocent civilians losing their lives.

It falls to international organizations to build a global environment that prioritizes human security objectives. As drones continue to proliferate around the world, nations find themselves at a disadvantage if they choose to limit how they use drones. With organizations like the United Nations able to develop regulatory frameworks to protect vulnerable populations in the past, they would be a valid body to establish new practices when it comes to the use of armed drones in the future.

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