

FACT SHEET | JANUARY 2019

UNMANNED AERIAL VEHICLES

IMPLICATIONS FOR FRAGILE STATES

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OVERVIEW: Though still a relatively novel technology around the world, there is a growing concern of unmonitored UAV use in fragile states. This piece highlights the opportunities and threats of UAV use in fragile states, and argues for a forward-thinking approach to how these vehicles can be regulated for the greater good in these jurisdictions.

I. INTRODUCTION

BOX1: WHAT IS AN UNMANNED AERIAL VEHICLE?



Miniature pilotless aerial vehicles, either controlled by a remote or app that uses aerodynamic forces to navigate and perform desired functions.

photo: Jonathan Lampe/Unsplash

The massive growth of drone use in the last decade has signaled a profound shift in the way that individuals, businesses, and state governments utilize unmanned aerial vehicle (UAV) technology. As manufacturers compete globally for market share amid the rising demand for UAV technology, the industry continues to expand as new designs and capabilities are introduced to the market. As this growth continues along its current trajectory, governments and other oversight entities will need to introduce legislation

that balances the benefits of UAV technology with the potential risks presented by aerial threats and surveillance.

In the face of these challenges, this factsheet examines the role of international UAV regulation and discusses the implications of UAV technology in the context of fragile states. Although many fragile states already face increasing security threats from non-state UAV use and have begun to embrace UAV technology to further their development and governance goals, this factsheet outlines why governments should initiate legislation to regulate UAV use within their borders.

II. FRAGILE STATES (CONTEXT/APPLICATION)

In defining fragile states (FS), this analysis utilizes a classification system that distinguishes fragile states using a set of four primary characteristics rather than a ranked index or quantified list¹:



Poor Governance



Weak State Legitimacy



Low Social Cohesion



Limited Institutional Capability

While there is a valid concern for the capacity of fragile states to implement and effectively monitor UAV use within their borders, UAV oversight signals an implicit shift toward investing in security for citizens, while also facilitating greater investment in technology that can be leveraged for greater social welfare (see Implications section below).

III. THREATS + OPPORTUNITIES

Threats:

As the UAV industry continues to proliferate, so too does the potential for UAV technology to be used for illicit activities and targeted violence. Most readily, threats to national and international security takes four forms:

1. ISTAR²
 - a. Intelligence + Surveillance + Target Acquisition + Reconnaissance
2. Hacking³
 - a. Stealing sensitive information
 - b. Jamming signal
 - c. Overtaking flight (Controls and/or video feed)
3. Weaponization of UAVs⁴
 - a. Arming UAVs with dangerous payload
 - b. Release of chemical or biological agent
 - c. Intentional collision with aircraft or infrastructure
4. Illicit Activities⁵
 - a. Transport of illicit goods (drugs, contraband, etc.)
 - b. Smuggling into restricted areas and prisons
 - c. Symbolic factors: terrorist propaganda and intelligence

Opportunities:

Although the security threat that UAV technology poses to fragile states in terms of privacy and safety are significant, government regulation is just as important in supporting and providing a legitimate governance structure for commercial UAV use in a variety of industries and development contexts.

Humanitarian Mapping Aid delivery	Agriculture Crop conditions Pesticides	Wildlife Conservation
Law Enforcement Peacekeeping Monitoring	Emergency Management Mapping Search and Rescue	Natural Resource Management
Infrastructure Management	Delivery of Goods	Land tenure/ registration

IMPLICATIONS:

The question still remains: if fragile states are typified by poor governance, limited institutional capability, low social cohesion and weak legitimacy⁶ then why should UAV regulation be a priority to states facing more tangible constraints^{7,8}? Three reasons emerge for why governments initiate legislation to regulate UAV use within their borders:



Public Safety



National Security



Structuring Private Sector growth

As priorities, these three elements are necessary components for a move away from fragility towards resilience. While legislation alone cannot achieve public safety, national security or private sector growth, it does signal to other states that the fragile government is willing to:

1. *Integrate or align with the international regulatory system (though the motivation for doing so varies)*
2. *Emphasize long term planning by:*

<i>Providing structure and controls within the UAV sector which promotes economic growth by establishing a system in which companies can align their activities and protocols</i>	<i>Establishes a system with an oversight mechanism early in anticipation of future growth and technological change within the UAV sector</i>
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3. *Demonstrate a desire towards improving governance and government agency by creating a system for promoting:*



Public Safety



National Security



State Sovereignty

Building a relationship with the public by prioritizing their safety and wellbeing

Emphasis on security within their borders and rule of law

Exercise of sovereignty by governing their land and airspace from domestic and foreign drone operators

Regulation alone is not enough to transition out of a state of fragility, and fragile states undoubtedly face greater obstacles relative to other countries due to their limited capacity and legitimacy. In fact, regulation in fragile states is often characterized by uneven implementation and enforcement⁹. However, regulation represents one of the preliminary steps needed to build a foundation of good governance both in terms of government oversight and providing a framework for the private sector to develop the UAV industry.

ENDNOTES

1. James Michel, *Managing Fragility and Promoting Resilience to Advance Peace, Security, and Sustainable Development* (Center for Strategic and International Studies (CSIS), January 2018)
2. Larry Friese, *Emerging Unmanned Threats: The Use of Commercially-Available UAVs by Armed Non-State Actors* (Perth: Armament Research Services, 2016)
3. "UAV- risk and liability challenges" Allianz, accessed May 28, 2018. <https://www.agcs.allianz.com/insights/expert-risk-articles/uavs-risk-and-liability-challenges/>
4. Max Levy, "Next-Gen Drones: Making War Easier for Dictators and Terrorists," *The Cipher Brief*, December 12, 2017, <https://www.thecipherbrief.com/next-gen-drones-making-war-easier-dictators-terrorists>.
5. Brian Buntz, "8 Drone Related Security Dangers," *Internet of Things Institute*, March 9, 2017, <http://www.ioti.com/security/8-drone-related-security-dangers>.
6. Nancy Lindborg, *Handle with care: The Challenge of Fragility*, (Brookings Blum Roundtable: Brookings, 2017)
7. Stephen R Wegner and Ann E. Flanagan, *The Private Sector in Fragile and Conflict-Affected States*, (IEG World Bank Group, 2013).
8. Constraints including but not limited to: political instability, access to electricity, and lack of basic infrastructure including clean water and transportation.
9. Finn Stepputat, *Working in "Fragile States": Problems, Dilemmas, and Guidance*, (Copenhagen: Danish Institute for International Studies, Jan 2007).

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