IJNRD.ORG ISSN : 2456-4184
INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD) | IJNRD.ORG
An International Open Access, Peer-reviewed, Refereed Journal

An Analysis of Drone Policy Law in India and Its Impact

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Abstract:-

The scope of drone restrictions imposed by the Indian government for both commercial and domestic use is examined in this study. The system that will be used to enforce the rules is also covered. Two significant issues that require resolution are covered in the study. The first is whether or not legal restrictions are necessary for the expansion of drone activities, and the second is whether or not privacy and trespassing issues need to be resolved. The paper makes a number of recommendations for drone operators to follow in order to avoid privacy-related issues. The study looks at the varied stances nations have taken on drone laws.

Keywords :- Drone , Safety , Policy , Regulations , UAV , Privacy

Introduction :-

People have become much more sociable because of the Internet and other technological advancements, which have also greatly reduced physical barriers between them. One such revolution currently underway is the rising use of drones. Drones have made a wide range of commercial uses possible in a number of sectors, including product delivery to end users, journalistic gathering of aerial footage for news stories, entertainment, and transportation. In addition to being employed for other law enforcement purposes, drones have also been used by governments and armies around the world to guard international borders. An estimated 32.22% compound annual growth rate between 2015 and 2020 is expected to bring the global market for unmanned aerial vehicles to USD 5.59 billion by 2020.There are several applications for drones in both the public and private sectors. In the construction sector, drones are used for aerial mapping and monitoring at key infrastructure locations including ports and power plants. The use of drones is expected to soar over the next few years as activity in these areas picks up. The use of drones to deliver items to consumers' homes is something that ecommerce merchants are also interested in. A Goldman Sachs analysis estimates that by 2022, global investment on drones would likely surpass $100 billion. India is expected to have one of the quickest rates of market growth for UAVs, according to industry research predictions. By 2021, the drone market will be worth $21 billion globally and $885 million in India, according to BIS Research. The government and private sector are looking at the potential of drones in six key industries, which might be the main driver of India's development. The key sectors include mining, agriculture, energy, infrastructure, insurance, media, and entertainment. A thriving industry would, however, need the right regulations and government

assistance. The connection between drones and the Indian court system has been turbulent and dramatic. The Indian government stunned the industry when it announced the new drone regulation in March 2021, setting a high bar for compliance. This was despite years of negotiations and agreements between the government and several stakeholders. But in August 2021, the government changed the drone regulations for the second time that year, thereby relaxing them completely.

This extraordinary legislative action would have been greatly influenced by the exciting possibilities of drones and their employment. Despite all of their advantages, drones have a serious risk of being utilised improperly. Concerns regarding the limiting implications on privacy and security rights due to unauthorized tracking, profiling, and spying using such data collected across jurisdictions have been raised by a number of parties. The study paper being given provides a brief introduction to the concept of drones, the technology that they might work with, and their current commercial capabilities and uses.Additionally, it looks at the legal issues raised by the usage of drones and compares national regulatory frameworks. Given the huge potential of the UAV business, the present debate over drone regulation is both current and crucial. However, the likelihood of drone misuse is very high. Therefore, an appropriate legislative framework is essential to advancing India's UAV sector while simultaneously keeping the issue under control. The international laws for this industry are discussed in all of the recent study papers and articles. Due to the regulations' recent introduction, there hasn't been much in-depth discussion of them, which makes this study extremely pertinent and educational.

Objectives :-

1. To analyse the laws of this industry in India and other countries and also draw inferences.
2. To study the drone industry in India.
3. To analyse the law in India and recommend it.

Research Methodology :-

The study was doctrinal in nature and therefore the researcher has made use of secondary sources. Sources like books, journals, articles, case laws, news articles and commentaries were pursued for the purpose of study. All sources were mainly collected through internet and research databases.

Literature Review :-

Nishith Desai (2021) :- this paper talks about the Recent updates to the UAV industry include revolutions brought about by favorable government policies. The paper said countries around the world are considering regulating drones to keep up with technological advances while ensuring public safety. Several countries, including the United States, Australia, Singapore and South Africa, have passed laws covering the management, production and operation of drones. India has also taken a step in this direction by creating new regulations that give greater freedom to drone operations in the country. The paper also mentions how the new law has helped the industry. The paper notes that while the new law has fully opened up the drone industry to domestic and international competitors, the work is far from done. As the number of industry players grows, new regulatory and safety issues

arise for participants to assess. Building society's trust in drones requires significant efforts by all stakeholders to ensure that drone operations are safe. In light of the new regulatory environment, industry stakeholders are seeking detailed discussions on the standards that will be implemented and the need to ensure that the actions of a few careless operators do not contribute to the negative public perception of drones. Self-regulatory frameworks can be considered.

Nishith Desai Associates (2018) :- in its research paper, talks about the future of UAVs in India and the world. According to the paper, the drone sector has the potential to boost the economy combined with global investment. Economic gains can also drive development and lead to new products as well as improved drones. However, the emergence of drones has raised many regulatory issues, including personal privacy, community security, airspace, and civil rights. Developing a symbiotic integration of law, tax, and civil liberties is therefore critical to the effectiveness of drones. As public awareness of drones grows and potential market support grows, the immediate implementation of comprehensive and adaptable drone regulation will go a long way in realizing this potential. Many stakeholders must unite and work together to develop a comprehensive policy framework for drone control that maintains a healthy balance between innovation and development.

Rajagopalan ,R.P. & Krishna, R (2019) :-this paper tells about the importance of the UAV industry and its rise in India. The study also examines the breadth of drone regulation in both private and commercial use by the Government of India. He also discusses a proposed system for enforcing the rules. This research focuses on his two key issues that need to be addressed. The first is to determine whether the development of drone operations requires regulatory action, and the second is to answer questions about drone invasions of privacy. This report suggests some best practices for drone operators to avoid privacy-related issues. According to the report, UAVs must follow data collection procedures according to the standards mentioned and specific data protection regulations such as GDPR. One such example is the European Union's GDPR. This paper examines different stances of countries on drone policy. The report also explores opportunities for cooperation on drone governance and India's ability to play a greater role as a key regulator in the global quest to meet global needs. Finally, the paper proposes current legislation that may further help industry, citizens, and governments while keeping safety concerns at bay.

Global Drone Regulations :-

A technical committee on unmanned aerial systems (UAS) was established by the International Organization for Standardization in 2014. The committee's activities include, among other things, standardizing the classification, design, production, operation, and safety management of UAS activities. A variety of other standards, some of which have been published and others which are in the works, are also available for UAS traffic management, staff training, and other related topics :-

United State of America :- As of September 2021, there were over 860,000 drones registered in the nation, with about 60% being used for recreational purposes and 40% for commercial purposes, according to the Federal

Aviation Association of the United States. A drone regulatory framework has been developed in the United States, a global leader in drone technology, for more than ten years. Since 2013, regulations governing unmanned aerial vehicles have been passed in at least 44 states. California approved legislation in 2019 making it a misdemeanor to use a UAS in a way that would violate someone's privacy. Idaho, Minnesota, and Massachusetts were among the eight states that enacted a total of 11 pieces of legislation aimed at regulating UAS in 2020. FAA regulations have traditionally taken the place of state restrictions. On June 28, 2016, the Federal Aviation Administration (FAA) released the Small Unmanned Aircraft Systems Regulation (Part 107) under Title 14, Chapter I of the Code of Federal Regulations for Aeronautics and Space. The rule specifies requirements for the operational use of small unmanned aircraft systems (UAS) weighing less than 55 pounds and addresses a variety of commercial and government drone applications. A drone must only fly in uncontrolled airspace, according to Part 107, and it must stay in the remote pilot's line of sight.

Canada: - Transport Canada Civil Aviation ("TCCA") has developed a regulatory framework for non-military drone use. Drone operators must follow the Canadian Aviation Regulations because all drones are classified as aircraft (CAR). Any drone that weighs between 250g and 25kg needs to be registered with the TCCA before it may take to the air. Pilots can get both entry-level and advanced credentials. The fundamental qualification allows a pilot to operate drones up to 25 kg in uncontrolled airspace as long as they keep at least 100 feet horizontally and not above spectators away from them and avoid airports and heliports. Pilots who wish to fly outside of any of these limits must hold advanced certification. Micro drones weighing under 250 grammes are exempt from drone registration requirements and pilot certification standards. Two major policy objectives being pursued at the moment are strengthening VLOS legislation and implementing a BVLOS framework, all of which would support sophisticated drone operations like delivery and surveillance.

The European Union :- Similar to the US, the EU has a specific set of drone rules that are adapted to the needs of its member states. The European Aviation Safety Agency ("EASA") published rules for air traffic control and location services in March 2017. According to this criterion, UAS were categorized into three categories depending on their maximum take-off mass: systems weighing less than 5 kg, systems weighing between 5 and 25 kg, and systems weighing more than 25 kg. The following year, the EASA discussed registering all drones, regardless of their mass.

The Drone Policy ,2021 in India

One of the earliest drone accomplishments in India occurred in May 2014 when a restaurant in Mumbai successfully delivered a pizza to much fanfare. Once the police realised there were no limitations in place, they forbade the use of drones. Due of their great potential, drones have subsequently been a hot topic of debate in India over regulation, usage, and operations. The Directorate General of Civil Aviation ("DGCA") and the Directorate General of Foreign Trade ("DGFT") respectively implemented restrictive laws and regulations prohibiting the civil use and import of drones in India till the end of 2021.Meanwhile, the Government of India has amended the Civil Drone System in India in August 2021 to inform the Drone Regulations 2021. They superseded the broad and

highly restrictive Unmanned Aerial Vehicle Systems Regulations 2021 published in March 2021. The government has significantly liberalized the drone system as a result of new regulations, including lifting explicit bans on foreign-owned companies in India and streamlining the drone registration and certification process. A “drone” is called an “unmanned aerial system” or “UAS” and is defined as “an aircraft capable of autonomous or remotely piloted flight without a pilot on board”. Additionally, the rule classifies drones like the previous rule, with one exception. Under previous regulations, nano drones were classified as micro drones if they exceeded specified performance parameters based on the maximum speed, altitude, or range achievable from the transmitter. This nanodrone performance-based classification has been deprecated.

The previous regime required the installation of numerous security mechanisms on all types of drones, which was another concern for the company. The new law does not specifically specify these safety features, but says the government has the authority to report required safety features such as no-launch, real-time tracking beacons and geofencing capabilities. Currently, there appear to be no mandated safety measures for drone placement. However, the inclusion of the above elements by the government means that at least these features will be required in the near future. Afterwards, every drone owner will be required to certify that he has implemented these features within six months of notification. The drone's UIN must be linked to the manufacturer's "unique serial number" and the flight control module and remote pilot station.

It is now against the law to replace either the remote pilot station or the flight control module without first notifying the Digital Sky Platform of the new serial number within seven days of the replacement or before the drone is used, whichever comes first. The prior regulations forbade foreign firms or their majority or totally owned Indian subsidiaries from owning, operating, producing, or otherwise dealing with drones in India. India's government has removed restrictions on drone use.As a result, the drone system has undergone liberalization for the first time since the industry was under government control, enabling FOCCs to, among other things, manufacture and use drones in India. As a result of the liberalization, foreign investment is predicted to come in as well as safer and more sophisticated drone technology, which would otherwise have to be created from scratch by domestic companies. The prior regulations contained exceedingly severe guidelines for how research, development, and testing ("R&D") operations to be carried out. The new regulations have significantly loosened this restriction, enabling any drone producer with a GST identification number to conduct R&D without requiring a type certificate. To make India a global drone hub by 2030, the Central Government proposed a Production-linked Incentive ("PLI") scheme for drones and drone parts in a news release dated September 15, 2021. The PLI plan was established as an extension of the New Rules. According to the plan, the drone industry is expected to receive more than INR 5000 crore ($6.8 billion) in investments over the following three years, according to the Indian government. The plan has a budget of INR 120 crore, which will be dispersed over three fiscal years and may be increased or revised after the impact of the industry is determined. A producer of drones and drone parts who is covered by the plan may get an incentive of up to 20% of value addition, calculated as annual sales revenue with GST subtracted from drone acquisition costs. This rate will always be 20% in the drone industry. While the new regulations encourage different parties to

research and develop the drone industry, it seems that there isn't really a framework for drone activities from a safety and security perspective.

Suggestions :-

As public awareness of drones grows and potential market support grows, the immediate implementation of comprehensive and adaptable drone regulation would go a long way in seizing this opportunity. Drawing on the lessons of the past, a range of stakeholders must work together to craft a detailed policy framework for drone legislation that maintains a healthy balance of innovation, progress and safety. Accordingly, specific proposals are listed below to amend the scope of these laws.

The UAS rules also included provisions for drone traffic management and related approval processes. In addition to traffic management services, UAS regulations required that traffic management professionals be licensed and drone traffic management training organizations licensed. Drone traffic management training organizations were also accessible to private organizations in accordance with UAS regulations. However, the draft regulation does not specify any method or procedure in this regard. The methods and structures established by the UAS Regulations are absent from the Draft Regulations. Additionally, to fully understand the intricacies of drone traffic management, Proposed Rule 26 should be read in conjunction with Proposed Rule 11, which establishes safety standards. It should be emphasized that the specific requirements under the proposed Rule 11 have not been laid out and that the central government will have six months from publication of the draft rules to submit them. To minimize ambiguity, draft rules should explicitly describe the list of offenses and corresponding penalties. A special court must be set up to hear cases arising from the draft regulations.

Conclusions :-

Countries around the world are considering regulating drones to keep up with technological advances while ensuring public safety. Several countries have passed legislation, including the United States, Australia, Singapore and South Africa, while many more are discussing and debating full regulation of the technology. India has also taken a step in this direction, increasing the freedom of drone operations within the country and enabling the growth and development of various sectors that wish to use drone technology for their services. Fully open to international competitors, the work is not done yet. As the number of industry players grows, new regulatory and safety issues arise for participants to assess. Building public trust in drones requires significant efforts by all stakeholders to ensure that drone activities are safe and welcome. In light of the new regulatory environment, industry stakeholders are seeking detailed discussions on the standards that will be implemented and the need to ensure that the actions of a few careless operators do not contribute to the negative public perception of drones. Self-regulatory frameworks can be considered.

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