

PANORAMIC

DRONE REGULATION

India



LEXOLOGY

Drone Regulation

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GENERAL FRAMEWORK

Basic rules and regulators

What basic rules govern the operation of remotely piloted aircraft and unmanned aircraft (drones) in your jurisdiction? Which regulatory bodies are charged with enforcing these rules?

In India, remotely piloted aircraft and unmanned aircraft systems (drones) are primarily regulated by the following:

- Drone Rules 2021 (the Drone Rules): the Drone Rules provide for categories and classification of drones into nano, micro, small, medium and large unmanned aircraft systems. Furthermore, it lays down provisions for certification of drones along with registration of drones on the DigitalSky portal along with certain exemptions. Under these Rules, the airspace is divided into three zones (Green, Yellow and Red). Additionally, the Rules provide for remote pilot certificate requirements, requirements for remote pilot training organisations, other safety measures such as prohibition on carrying dangerous goods and various forms as required by the Directorate General of Civil Aviation (DGCA).
- Certification Scheme for Unmanned Aircraft Systems: a detailed certification scheme as published by the Ministry of Civil Aviation. Some of the key provisions include:
 - certification criteria applicable to drones (technical criteria requirements for various parameters, kinetic energy limits for drones, guidelines for flight testing, various stages of flight-testing); and
 - detailed certification process from application to evaluation of all requisite documentation; and
 - rules for certification mark, etc.

The DGCA is charged with enforcing these rules.

Law stated - 25 October 2025

Basic rules and regulators

What are the penalties for non-compliance with the laws and regulations governing drones?

Under the Drone Rules, where the relevant authority is satisfied that a person has contravened or failed to comply with the provisions of the rules, a maximum penalty of 100,000 Indian rupees may be levied after recording the reasons in writing.

Law stated - 25 October 2025

Classification

Is there any distinction between public and private drones, as well as between leisure use and commercial use?

There is no specific distinction between public and private drones as well as between leisure use and commercial use. The only exception are 'model remotely piloted aircraft systems'. According to Rule 3(n) of the Drone Rules, a model remotely piloted aircraft system is a remotely piloted aircraft system with all-up weight not exceeding 25 kilograms and used for leisure purpose only and operated within the visual line of sight.

Law stated - 25 October 2025

Classification

Is there a weight-based or other classification system for drones resulting in the application of different rules?

Yes, according to the Drone Rules, based on the maximum all-up weight including payload, drones are classified into the following types:

- nano unmanned aircraft systems (weighing less than or equal to 250 grams);
- micro unmanned aircraft systems (weighing more than 250 grams but less than or equal to 2 kilograms);
- small unmanned aircraft systems (weighing more than 2 kilograms but less than or equal to 25 kilograms);
- medium unmanned aircraft systems (weighing more than 25 kilograms but less than or equal to 150 kilograms); and
- large unmanned aircraft systems (weighing more than 150 kilograms).

Accordingly, based on the aforementioned classification, there are clear and distinct differences in the rules applied to different drones.

Certification requirements

Nano drones and model remotely piloted aircraft system are exempt from requirement of a type certificate for the operation of these drones.

Remote pilot training requirements

Pilots of nano drones and micro drones (operated for non-commercial purposes) are exempt from the requirements of remote pilot training. All others, falling in any other category, except for the categories mentioned above, are required to fulfil the requirements of remote pilot training.

Law stated - 25 October 2025

Classification

Is there any legal distinction between completely autonomous drones and remotely piloted drones?

There is no legal distinction between completely autonomous drones and remotely piloted drones.

Law stated - 25 October 2025

DESIGN AND MANUFACTURE

Regulation

Do specific rules regulate the design and manufacture of drones in your jurisdiction?

In general, the Indian government is looking to boost manufacturing of drones in India and has therefore implemented a blanket ban on the free import of built-up drones into the country. There are no specific regulations that regulate the design and manufacture of drones in India. However, the Quality Council of India has published a FAQ on Certification Scheme for Unmanned Aircraft Systems (UAS) (the FAQs). Under the FAQs, there is no restriction on manufacturing as such. However, it is of utmost importance that any product manufactured has to meet minimum safety standards to ensure safety of the people, product and the aviation ecosystem.

Law stated - 25 October 2025

Manufacturing authorisation

Must drone manufacturers obtain any licences or other authorisation to carry out their business? Are manufacturers subject to any other specific rules?

There are no specific licences or other authorisations that drone manufacturers must obtain to carry out their business in India. Once the drone has been manufactured, the Drone Rules 2021 provide for certification and registration of the drone. In the case of foreign manufacturers, it is important for such manufacturers to comply with Indian legal entity requirements. This local entity would apply for certification for UAS in India.

Law stated - 25 October 2025

Product liability

Do general product liability rules (or other specific liability rules) apply to the manufacture of drones?

In India, product liability is governed by provisions of the Consumer Protection Act 2019. Under this Act, product liability means the responsibility of a product manufacturer or product seller, or product service provider, to compensate for any harm caused to a consumer by a defective product manufactured or sold or by a deficiency in services in connection with the product. Therefore, a person who falls under the definition of consumer

under this Act may sue a drone manufacturer if a defective product is manufactured and sold to them. Additionally, general application of the Law of Torts would apply.

Law stated - 25 October 2025

REGISTRATION AND IDENTIFICATION

Registration

Must drones be registered in a specific national registry? If so, who is entitled to register drones and what requirements and restrictions apply? Is the registry organised as an operator registry or an owner registry?

Yes, according to the Drone Rules 2021 (the Drone Rules), no unmanned aircraft system may be operated by anyone unless it is registered on the DigitalSky platform. Upon registration, each drone will receive a unique identification number (UIN). The Director General may provide an exemption from the requirement of obtaining a UIN.

Any person who intends to register drones must make an application in 'Form D-2' on the DigitalSky platform by paying the requisite fees.

The application shall include:

- details of the individual (if applicable);
- details of the organisation (if applicable); and
- unmanned aircraft system specifications such as the manufacturer's name, model name, serial number, etc.

The person operating a drone must ensure that it conforms to a valid type certificate. The Drone Rules further state that the UIN allotted shall be linked to the unique serial number provided by the manufacturer and the unique serial numbers of its flight control module and remote pilot station. Therefore, no person shall replace the flight control module or remote pilot station without first updating the new unique serial numbers on the DigitalSky platform.

The registry for drones is maintained by the Director General and is organised as an owner registry.

Law stated - 25 October 2025

Identification

Are drones identified through a marking system similar to that used for manned aircraft?

In India, manned aircraft registered on the Indian aircraft register are given a three-letter registration number prefixed with the letters VT – for example, VT-XYZ. However, the drone register is different from that of an aircraft register and therefore the marking system is different. Drones are identified by UINs allotted on the DigitalSky platform.

Law stated - 25 October 2025

CERTIFICATION AND LICENSING

Basic requirements and procedures

What certificates or licences are required to operate drones and what procedures apply?

Except for model remotely piloted aircraft system and nano unmanned aircraft system, drones need to conform to a type certificate in order to be operated in India. The Director General or any authorised entity, on the recommendation of the Quality Council of India (QCI) or any other authorised testing entity shall issue the type certificate.

According to the Drone Rules 2021 (the Drone Rules), any person who intends to obtain a type certificate must file an application in Form D-1 on the DigitalSky platform and pay the requisite fees. The application shall specify the details of the applicant and the details of the prototype unmanned aircraft system. Additionally, the prototype shall be physically handed over to the authorised testing entity.

The QCI or the authorised testing entity shall examine the application and the prototype and submit the test report along with recommendations to the Director General within 60 days of date of receipt of the application. Within 15 days of receiving the test report, a type certificate shall be issued once the Director General is satisfied.

Law stated - 25 October 2025

Taxes and fees

Are certification and licensing procedures subject to any taxes or fees?

Yes, according to the Drone Rules, the fees payable for services are as follows:

- issuance of type certificate: 100 Indian rupees;
- issuance, transfer or deregistration of UIN: 100 Indian rupees; and
- issuance or renewal of remote pilot licence: 100 Indian rupees.

Authorisation or renewal of authorisation of remote pilot training organisation – 1,000 Indian rupees.

Law stated - 25 October 2025

Eligibility

Who may apply for certifications and licences? Do any restrictions apply?

Type certificate for drones may be applied for by the manufacturer (individual or organisation) of the drone by filing Form D-1 under the Drone Rules. Additionally, a drone may be registered by its owner or operator (individual or organisation) by filing Form D-2 under the Drone Rules.

Law stated - 25 October 2025

Remote pilot licences

Must remote pilots obtain any certifications or licences to operate drones? If so, do the relevant procedures differ based on the type of drone or operation?

Yes, remote pilots must obtain a certificate to operate drones. In order to apply for a remote pilot certificate, an individual must complete the training and pass the tests conducted by the authorised remote pilot training organisation. Upon successfully passing the tests, within seven days, the remote pilot training organisation shall make an application for remote pilot certificate in Form D-4 on the DigitalSky platform by providing details of the individual who passed the test. The procedure for obtaining a remote pilot certificate does not differ based on type of drone or operation. However, operation of nano unmanned aircraft systems and operation of micro unmanned aircraft system for non-commercial purposes are exempt from requirement of obtaining a remote pilot certificate.

Law stated - 25 October 2025

Foreign operators

Are foreign operators authorised to fly drones in your jurisdiction? If so, what requirements and restrictions apply?

While there is no explicit bar, foreign operators are not permitted to operate drones in India. Under the Drone Rules, any person intending to fly a drone must be registered on the DigitalSky platform and is required to submit:

- Form D-1 (Application for Type Certificate);
- Form D-2 (Application for Registration of UIN); and
- Form D-4 (Application for Remote Pilot Licence).

Each of these forms mandates the provision of an Indian passport number and Aadhaar number, indicating that only Indian nationals or entities are eligible for such registration. Accordingly, it can be inferred that foreign operators are not authorised to operate drones in India.

Law stated - 25 October 2025

Certificate of airworthiness

Is a certificate of airworthiness required to operate drones? If so, what procedures apply?

No, there is no requirement of a certificate of airworthiness to operate drones in India. However, there are specific safety measures in place such as No Permission – No Takeoff hardware and firmware. The central government may also notify features such as:

- a real-time tracking beacon that communicates the unmanned aircraft system's location, altitude, speed and unique identification number; and

- geo-fencing capability.

Law stated - 25 October 2025

OPERATIONS AND MAINTENANCE

One drone, one pilot

Does the 'one drone, one pilot' rule apply in your jurisdiction?

The Drone Rules 2021 (the Drone Rules) do not explicitly provide for 'one drone, one pilot' rule. However, the Rules merely imposes a restriction to the extent that no individual other than a holder of a valid remote pilot's certificate enlisted on the DigitalSky platform shall operate a drone.

Law stated - 25 October 2025

Maintenance

Do specific rules regulate the maintenance of drones?

There are no specific rules that regulate the maintenance of drones in India.

Law stated - 25 October 2025

Basic operational rules and restrictions

What rules and restrictions apply to flights performed in 'visual line of sight' (VLOS) and 'beyond visual line of sight' (BVLOS)? Is there a distinction in this regard?

At present, the Certification Scheme for Unmanned Aircraft Systems covers certification standards for flying in VLOS and therefore, drone operations are only permitted within the VLOS.

There is a lack of certification standards for beyond visual line of sight capabilities – BVLOS (thereby operators cannot conduct BVLOS operations). Trials have been conducted for BVLOS operations; however, formal regulations are still awaited.

Law stated - 25 October 2025

Basic operational rules and restrictions

What rules and restrictions apply to critical and non-critical operations? Is there a distinction in this regard?

There are no specific rules with respect to critical and non-critical operations in India. There is no distinction in this regard.

Law stated - 25 October 2025

Transport operations

Is air transport via drone (eg, cargo and mail) regulated in your jurisdiction? If so, what requirements, limitations and restrictions apply?

The Drone Rules prohibit the carriage of hazardous materials or dangerous goods on drones unless such operations are in compliance with the Aircraft (Carriage of Dangerous Goods) Rules 2003. Among other things, these rules of 2003 provide for packaging, labelling and marking the dangerous goods to be transported along with detailed responsibilities of the operator.

Other than the rules stated above, there are no specific regulations or requirements that apply to air transport via drones.

Law stated - 25 October 2025

Transport operations

Do any specific provisions governing consumer protection and tracking systems apply with respect to cargo and delivery operations via drone?

There are no specific provisions governing consumer protection and tracking systems that apply (yet) in respect of cargo and delivery operations via drone. However, general laws of consumer protection would apply.

Law stated - 25 October 2025

Insurance requirements

What insurance requirements apply to the operation of drones?

According to the Drone Rules, the provisions of the Motor Vehicles Act 1988 and rules made thereunder shall apply in relation to insurance. Therefore, the party operating the drone must procure a third-party insurance of unmanned aircraft system and compensation in the case of damage to life or property caused by such an unmanned aircraft system. However, this requirement does not apply to nano unmanned aircraft systems.

Law stated - 25 October 2025

Safety requirements

What safety requirements apply to the operation of drones?

Under the Drone Rules, the central government has the authority to include the following safety features to be installed on an unmanned aircraft system by persons owning it. They are:

- No Permission – No Takeoff hardware and firmware;
- real-time tracking beacon that communicates the unmanned aircraft system's location, altitude, speed and unique identification number; and

- geo-fencing capability.

The No Permission-No Takeoff feature is currently operational via the DigitalSky platform. Under No Permission – No Take-off compliance, every Remotely Piloted Unmanned Aircraft Systems (UAS) (except Nano unmanned aircraft system) has to obtain valid permission through the DigitalSky platform before operating in India.

Additional safety requirements as stated in the Drone Rules are:

- a remote pilot must always monitor the DigitalSky platform for any notifications or restrictions pertaining to unmanned aircraft system operations in the targeted region of operation before initiating an unmanned aircraft system operation;
- it is prohibited for anyone to use an unmanned aircraft system in a way that could endanger the safety and security of any person or property; and
- UAS shall, at all times, give way to manned aircraft.

UAS shall not carry dangerous goods unless such operation is in compliance with the Aircraft (Carriage of Dangerous Goods) Rules 2003.

Law stated - 25 October 2025

AIRSPACE

Air traffic control

How is air traffic control regulated in your jurisdiction? Which authority provides air traffic control services for drones?

Air traffic in India is jointly regulated by the Directorate General of Civil Aviation (DGCA) and the Airports Authority of India, although in the future it is expected that the DGCA shall be the sole regulator of air traffic in India. The National Unmanned Aircraft System Traffic Management (UTM) Policy Framework is established to define the mechanism for traffic management of unmanned aircraft in very low level airspace up to 1,000 feet above ground level. This airspace shall be defined as UTM airspace. The airspace map for Unmanned Aircraft Systems operations in India is divided into Green (requiring no permission), Yellow (requiring prior permission) and Red (requiring prior permission) zones and is managed within the DigitalSky platform as a real-time digital repository. The primary responsibility of each air traffic authority is to grant approvals for unmanned aircraft to fly inside their designated yellow zone. Once the remote pilot has obtained the required permissions from the central government, they may be able to grant clearance for flights within airport red zones.

Law stated - 25 October 2025

Restrictions

Are there any airspace restrictions on the operation of drones?

The airspace for operation of drones is divided into green, yellow and red zones. There are no restrictions for an operator to operate a drone in the Green Zone (up to 400 feet, up to 200

feet in area between 8 and 12 kilometres of an operational airport). However, at any given point in time, should an operator want to operate a drone in a Yellow Zone (above 400 feet, above 200 feet in area between 8 and 12 kilometres of an operational airport) or Red Zone (no flying-zone, area specified by the central government including international borders), it is mandatorily required to obtain prior permission of the concerned air traffic control or central government respectively.

Law stated - 25 October 2025

Take-off and landing

Must take-off and landing of drones take place in specific areas or facilities?

The regulations do not prescribe any particular area or facility for the take-off or landing of drones.

Law stated - 25 October 2025

LIABILITY AND ACCIDENTS

Cargo liability

Are there any specific rules governing the liability of drones for losses or damage to cargo?

There are no specific rules in this regard.

Law stated - 25 October 2025

Third-party liability

Are there any specific rules governing the liability of drones for damages to third parties on the surface or in the air?

Apart from the requirement for each drone operator to have valid third-party liability insurance cover, there are no specific rules that govern liability of drones for damage caused to a third party. The Drone Rules 2021 (the Drone Rules) provide that it shall be the responsibility of the drone operator to ensure that the drone remains clear of all manned and unmanned air traffic. Furthermore, it requires the drone to be operated in a manner that poses no danger to any person or property.

Law stated - 25 October 2025

Accident investigations

How are investigations of air accidents involving drones regulated in your jurisdiction?

To date, the Drone Rules do not deal with a detailed procedure with respect to air accidents involving drones. The applicable regime would depend on the nature of the accident and types of vehicles involved.

Law stated - 25 October 2025

Accident reporting

Is there a mandatory accident and incident reporting system for drone operators in your jurisdiction?

Yes, operators of all drones are mandatorily required to report any incident or accident to the Director General within 48 hours of the accident taking place. The reporting has to be done via the DigitalSky platform.

Law stated - 25 October 2025

Safety management and risk assessment

Are drone operators required to implement safety management systems and risk assessment procedures within their organisation?

Yes, drone operators are generally required to implement safety management systems and risk assessment procedures within their organisation. According to the Drone Rules, before commencing a flight, a drone operator is required to carry out a safety risk assessment to include hazard identification. The DigitalSky platform must be checked by the remote pilot for any notifications or restrictions pertaining to the operation of unmanned aircraft systems in the designated region of operation.

Law stated - 25 October 2025

ANCILLARY CONSIDERATIONS

Import and export control

Do specific import and export control rules apply to drones in your jurisdiction?

Yes, in relation to import of drones, to promote domestic manufacturing of drones in India, the Department General of Foreign Trade vide its Notification dated 9 February 2022 prohibited the import of completely-built-up, semi-knocked-down or completely-knocked-down form of drones with the exception of importing these drones for the purpose of research and development by government entities and for the purpose of defence and security. However, this prohibition is not applicable for import of drone components.

Law stated - 25 October 2025

Data privacy and IP protection

How are personal data privacy and IP protection regulated in your country with specific reference to drone operations?

There are no data privacy and IP protection regulations with specific reference to drone operations. However, if sensitive information is being collected, the Digital Personal Data Protection Act 2023 will be applicable. The Act has recently come into force in India. The Act is still in a nascent stage and is yet to evolve (through court precedent, etc), the Act applies to the processing of personal data within India as well as outside India. It applies to data being collected while offering goods and services to individuals. The Act allows the government to declare entities as 'significant data fiduciaries' depending on the volume and sensitivity of the personal data being collected; risks to the rights of the individual. The volume of data collected would eventually determine the compliance requirements and standards of how the data collected and stored is to be processed, maintained and saved.

Law stated - 25 October 2025

UPDATE AND TRENDS

Sector trends and regulatory developments

Which industry sectors have seen the most development in the use of drones in your jurisdiction and which sectors are expected to see further development in future? Have there been any notable recent regulatory developments relating to drones?

In India, drone technology has rapidly evolved across several industry sectors, with significant developments in both commercial and governmental applications. Drones are used in agriculture for precision farming, spraying pesticides and fertilisers, and conducting soil health analysis. Other industry sectors are infrastructure and construction, energy and utilities, healthcare, security and surveillance. The sectors expected to see further development in drone usage are e-commerce and delivery, environmental conservation, disaster management and relief.

A major milestone in India's drone ecosystem was the introduction of the Drone Rules 2021. These regulations simplified the certification and licensing process for drones, making it easier for operators to comply with legal requirements. Other notable developments are the PLI scheme for drones and drone components. Under this scheme incentives are given to drone manufacturers and component makers for meeting specific production and sales targets. Additionally, India now allows 100 per cent foreign direct investment under the automatic route for drone manufacturing. Also, the government is working towards formulating guidelines for BVLOS operations, which are key to enabling drone deliveries and long-range surveys.

Additionally, the proposed Civil Drone (Promotion & Regulation) Bill 2025 (Draft Drone Bill) which is yet to be notified by the Indian government, seeks to establish a legal framework governing the design, manufacture, registration, operation, safety oversight, export, insurance and enforcement of drones in India. It consolidates regulatory powers under the Directorate General of Civil Aviation, granting explicit authority for safety oversight of drone operations within Indian airspace. The Draft Drone Bill also introduces mandatory insurance requirements for operators and owners to cover potential third-party

liabilities, along with stricter penalties which include fines up to 100,000 Indian rupees and imprisonment for serious violations to ensure deterrence and accountability. The Draft Drone Bill mandates insurance coverage for drone operators and owners to guard against third-party liability arising from accidents or damage.

Law stated - 25 October 2025