

India is at the cusp of an aviation boom. Not simply commercial aircraft and passenger travel but military and drones as well. India currently has 713 civilian aircraft in operation and another 1522 aircraft awaiting delivery by 2031. This alone would make India the third largest market for commercial planes after the US and China.

However, the Government of India is determined to expand access to air travel and air transport to currently unserved regions of India and has recently announced investments of around \$12 billion by 2025 to boost regional connectivity. This translates to more airports, aircraft, new flying schools, recruitment of specialized staff, pilots, regulators and air traffic controllers all to meet the booming demand for air travel. India's plan is not just for passenger travel, but for cargo as well, both perishable and non-perishable. Currently Ministry statistics indicate that only 4% of the population have ever travelled by air. With the current set of schemes to increase regional connectivity in Tier 1 and 2 cities, that percentage is set to dramatically increase.

It is estimated that India will need 31,000 pilots and some 26,000 mechanics over the next 20 years. The government has announced an

additional 50 airports, waterdromes and heliports in addition to the 200 already in operation, under construction and planned, 33 new domestic cargo terminals, 15 new flight training schools for pilots and increase focus on the drone and helicopter sector. Add to that the aviation development programs of the Government of India UDAN and Krishi UDAN schemes and you have a much larger story unfolding of increased logistics connectivity, additional transportation infrastructure coming up outside of the metros, more jobs, more regional industrial hubs, better connectivity for entrepreneurs, farmers and citizens in general in India's more remote regions.

This also means a boost in MRO as all of these commercial passenger and cargo planes, helicopters and drones will need constant maintenance, repair and overhaul also known as MRO. MRO in India is at a nascent stage with 80% of all MRO for current commercial aircraft being conducted outside the country. India needs to build its own MRO capacities at pace with the increase in its aircraft. Recent mega deals in civilian and military aircraft have come with a Make in India requirement that will now allow the Indian private sector to begin manufacturing aircraft domestically. Developing

this ecosystem will need foreign Original Equipment Manufacturers (OEMs) to also set up shop in India either through independent set ups, alliances or collaborations. This too benefits the MRO space as many of the components needed could now be manufactured in India.

MRO is the second largest cost for airlines, coming in at 12-15% of overall revenues. According to a report by NITI Aayog, the MRO cost of an aircraft can be broken down into line maintenance (8% of total costs) components (22% of total costs), base maintenance (10% of total cost) and engines and auxiliary power units (60% of total costs). Most MRO outside of the US and Europe, occurs in Singapore, the UAE, Malaysia and Turkey. This is for a variety of reasons that are now being addresses, some of which include an increased OEM or manufacture presence in the aftermarket space that restricts independent MRO players from diversifying, raises rates for key parts, restricting access to data and maintenance manuals. There are also issues at a contractual stage and offset clauses while purchasing or leasing the aircraft that can mandate airline operators to using only designated MRO affiliates. As most of these are outside India, independent Indian MRO players often cannot access key parts without incurring prohibitive costs. Despite having offset clauses at the time of purchase, these are often not implemented and the training and technological capacity of the MRO players in India remains restricted.

Countries like China manage this by mandating that the aircraft, engine and component OEMs establish their supply chain, manufacturing units and MRO establishments within the country at the contractual stage to ensure long term strategic creation of an ecosystem for domestic sustainability. Land availability near airports, taxes, royalty charged by airports, access to credit, issues in the compatibility of licensing and certification framework at the DGCA with the FAA or EASA are other issues that hinder development of the MRO sector in India.

To begin addressing these issues and develop a domestic MRO ecosystem, the government announced an MRO policy in 2021 that was aimed at bringing India's MRO sector at par with the global markets. Policies like:

- Lowering the GST on domestic MRO services from 18% to 5% with full input tax credit from 1st April 2020
- Treating transactions sub-contracted by foreign OEMs and MRO companies to domestic MROs as exports with zero-rated GST
- Waiving custom duty on tools, toolkits and spares imported by MROs and
- Permitting 100% foreign direct investment through the automatic route
- Exempting MRO service companies from airport royalty and extra costs for 5 years
- Extending duty free component imports for MRO from one to three years
- Permitting foreign aircrafts to visit India for MRO for a six month period rather than a 15 day period
- Offering land allotments for MRO facilities for 30 years rather than 3-5 years

All of these are targeted at integrating Indian MRO with the global value chain, but it will be a long process. The first steps are joint ventures with established MRO players. Indian SMEs with a focus on MRO can aim for segments with lower IP control like electrical and electronics, avionics, structural repair etc and gradually shift to the higher end of the MRO value chain ie engines and landing gear.

Most importantly, this needs to be developed as a sustainable end-to-end ecosystem for commercial, general and military MRO. According to MRO Business Today the aviation MRO market globally was valued at \$79.2bn in 2022 and is estimated to reach \$133.69bn by 2030. Given India's plan for increasing regional transportation, including air travel in improving the movement of perishables across the country, using drones and smaller aircrafts and helicopters for the development of tourism

in hard-to-reach terrain and modernizing its defence aircraft, India's MRO requirements will likely be considerably higher, making it imperative to develop an indigenous MRO sector to support a growing commercial and defence sector. While low level checks are done inhouse by Indian airlines, the more intense and expensive C and D checks are outsourced to 3rd party MRO players usually connected with the OEMs.

Fortunately, there are several trends that are working in India's favor:

- Post the pandemic and the strides taken in India in digitalization, investments on focused initiatives around predictive maintenance, paperless MRO, planning and scheduling optimizations to control costs and improve efficiencies are now being brought forward. With a rich start up ecosystem, various innovations in 5G, mobile technology, IoT, wearables etc, digitalization of MRO is quickly being taken up by Indian players.
- The Government of India putting in place policies conducive to attracting global OEMs to set up MRO services independently or in association with local MRO players, we are

- seeing several taking shape like Safran-HAL, Boeing-GMR Aero Technic, GE Aviation-Air India, Air India Engineering Services Lts – Pratt & Whitney, Spirit AeroSystems – GMR Aero Technic, Wadia Group -SIA Engineering Co to name a few.
- The pandemic also saw private airline players chose to service their aircraft within the country and the MRO players coming together and ensuring quality delivery of work.
- Drones are a previously untapped resource for the MRO sector in India, but with increased usage they offer a growing opportunity.
- Availability of a large and diverse pool of tech savvy, English speaking engineers
- Prevalent sale and lease back model followed by airlines in India, offers a large scope for redelivery maintenance services particularly to meet the lessor's MRO requirements.

With the OEM's and global MRO players moving into India and the Indian government coming out with a slew of initiatives to bring outsourced MRO back into India and increase regional access to air travel, the opportunity that the Indian MRO space offers over the next few years is one that certainly cannot be ignored.

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