



# Unlocking Socio Economic potential of Space Innovation in Kenya | Lessons from Indian Space Research Organisation (ISRO)

Kenya has recognised the potential role that space science, technology and applications as well as space-derived data and information can play in catapulting socio economic development through support to important sectors such as agriculture, mining and housing among others.

In this regard Kenya established the Kenya Space Agency, a State corporation whose mandate is to promote, coordinate and regulate space-related activities to enhance utilization of space technology for national socioeconomic development. Its role is to develop the space sector, and to provide leadership and advisory in policy, legislation and programmes related to this sector.

The agency developed a strategic plan for fy 2020-2025 with the following key focus areas

## Kenya Space Agency Strategic Areas

### Priority Programmes

#### 1-Delivery of Space Services.

- Earth Observation,
- Navigation and Positioning,
- Satellite Communications,
- Space Operations and Systems Engineering Space Science and Astronomy

#### 2-Developing National Space Capability

- Assessment of space potential,
- Investments in human capacity,
- Acquisition of critical infrastructure,
- Promotion of research
- Education and public awareness.
- promote uptake of space science, technology and applications (SSTA).

### 3-Sector Coordination and Leadership.

- leadership,
- Sector planning,
- Developing an enabling policy and legal environment
- Creating networks and linkages
- Establishing communications and knowledge management framework for effective and efficient coordination of the sector initiatives and activities.

### 4-Corporate Positioning and Sustainability

- Corporate positioning,
- Resource mobilization
- Institutional sustainability.

Source : Kenya Space Agency Strategic Plan 2020-2025

([https://ksa.go.ke/assets/files/KSA\\_POPULAR\\_VERSION\\_October\\_Compressed.pdf](https://ksa.go.ke/assets/files/KSA_POPULAR_VERSION_October_Compressed.pdf))

#### Lessons Kenya can learn from India

The Indian space sector, led by the ISRO - Indian Space Research Organisation and underpinned on development and utilization of indigenous technology, continues to play a critical role in supporting various sectors of the economy through transfer of technological advancement with an estimated space economy valued at 8 billion USD with Compound annual growth rate of 9.6% during the period from 2023-2040.

The Kenya space agency under Developing National Space Capability area can pick the following lessons from India;

**1-Industry engagement.** The agency must spearhead collaboration programs with existing local manufacturers both large and SMEs in order to build capacity across value chains of satellite subsystems as opposed to importing parts as this will not only inculcate sustainability from supply chain shocks but also increase economic value in the country.

These collaborations must be cross-cutting through the national working group that brings ; @Kenya Association of Manufacturers (KAM) , Association of startup and SME enablers of Kenya (ASSEK) , Association of countrywide Innovation hubs (ACIH) among others.

The agency must also look at establishing a vehicle for technology transfer of innovation that have commercial applications through buy back arrangements similar to NewSpace India Ltd, the commercial arm of ISRO.

2-Knowledge development. The agency must prioritize engagement with players in the knowledge economy such as public and private research institutions as well as academia through sponsored research projects, establishment of space technology cells at engineering institutions such as TVETs and VTCs as well as with existing incubation hubs to increase research aptitude and churn solutions in these spaces

3-Startups ecosystem engagement. India has over 100 spacetech startups with investments in 2021 being 68 M USD representing an annual growth rate of 196 percent with 47 new space tech startups.

India boasts of over 100 spacetech startups. The year 2021 was a watershed year for spacetech startups, with investments reaching US\$68m, a y-o-y increase of 196%. There were a total of 47 new space tech startups established in India in 2021. Key drivers for investment in the Indian space. Kenya through the space agency can offer support to startups through ; venture building type incubation and accelerator programs supported by corporates and private incubators based on identified technologies with commercial application.

The list of space technology applications are endless as published ISRO  
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