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Author: Mr. Mustapha Iderawumi Nigeria

THE IMPACT OF INTER-AFRICAN AND FOREIGN SPACE COOPERATION ON THE GROWTH OF THE AFRICAN SPACE INDUSTRY

Abstract

The premise of bilateral and multilateral space agreements between African countries and foreign nations aims to enhance development in the space industry by fostering synergies in critical areas rather than duplicating efforts. Between 2000 and 2024, African countries have signed over 170 space agreements with more than 110 institutions from 34 countries globally, according to internal research. These agreements have played crucial roles in fostering partnerships to advance space technologies, capacity building, satellite development, Earth observation, and telecommunications infrastructure across the continent. Additionally, these collaborations facilitate the transfer of knowledge and technical know-how among collaborators and partners, ensuring that space science is developed comprehensively in every country, particularly those African nations initiating their space programmes.

For example, as of February 2024, 16 African countries have launched 59 satellites, the latest being Egypt's Nexsat-1, launched on February 3, 2024. More than half of these satellites have originated from some development agreement, often inclusive of hands-on capacity development for selected engineers from the purchasing country. Similarly, over 26 African nations have commenced their space exploration activities, albeit with varying degrees of involvement and achievements, measured in infrastructure, the number of certified engineers and technicians capable of leading space projects, and direct involvement in space operations and capacity development initiatives.

This paper aims to explore all documented space agreements (2000- February 2024) between African countries and those between African and foreign nations to underscore the importance and impact of these agreements and collaborations on the African space industry. The milestones achieved through these agreements will be quantitatively measured regarding their impact on infrastructure, technical sophistication, human capital, and their relation to each nation's sustainable development efforts.

Furthermore, the paper will examine some hindrances that have impeded space agreements among certain countries and explore why they have not met their expectations. Critical factors such as financial, political (including shifts in government priorities or changes in a nation's security profiling of each other), and technological constraints among members will be investigated.