



Ghana Space Science and Technology Institute

<https://gssti.org>

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Cultivating the African Dream through Space-Driven Solutions

Written statement to inform the Pact for the Future

Chapeau

Imagine a future where barren lands blossom, food security soars, and peace reigns across continents. This is not a utopian dream, but a tangible vision woven into the very fabric of this Pact for the Future. Here, we celebrate the boundless frontier of space and its potential to transform our planet, starting in Ghana and Africa.

This pact is a call to action, a symphony of voices rising in unison to declare that space is not a distant marvel but a potent tool for sustainable development, a celestial key unlocking a brighter tomorrow. Within these pages, you'll find ambitious goals and concrete steps to bridge the gap between imagination and reality.

From establishing a dedicated African Space Agency to nurturing young minds with the wonder of space science, from harnessing satellite data for precision agriculture to fostering global dialogue on responsible space exploration, this pact is a roadmap to a future where space serves humanity, not the other way around.

Let us be the generation that reaches for the stars and uses their light to illuminate a more prosperous, peaceful, and food-secure world.

This "Pact for the Future" is an invitation to join a revolution, a call to cultivate a future where every Ghanaian and African can blossom under the light of a brighter tomorrow.

Chapter I. Sustainable development and financing for development

- Establish a dedicated African Space Agency: Facilitate the creation of a continental agency for effective coordination, foster collaboration, resource sharing, prudent space investment, and expertise development in space exploration and applications.
- Develop space-based monitoring systems: Implement affordable and accessible satellite-based technologies for near real-time data collection and monitoring of natural resources, environmental changes, and disaster risk reduction and preparedness across Africa.
- Advocate for increased financial support and investment in sustainable agricultural practices, including precision farming and satellite-guided technologies, to enhance productivity while minimizing environmental impact.
- Launch Space for SDGs initiative: Create a public-private partnership fund to finance space-based solutions for achieving the Sustainable Development Goals (SDGs) in Africa, prioritizing food security, healthcare, and climate change mitigation and adaptation.
- Implement capacity building programs: Conduct training workshops and mentorship initiatives for scientists, engineers, and entrepreneurs to develop technologies and solutions that fit the Ghanaian and African context, equipping them with the skills and knowledge to utilize space technology for development. Facilitate partnerships with established spacefaring nations to provide mentorship, knowledge transfer, and technical assistance. Call for creating training programs and capacity-building initiatives focused on equipping farmers with the skills to leverage space technologies, data analytics, and climate-smart practices.
- Promote private sector investment: Establish clear regulations and incentives to attract private investors and companies to partner with African governments and institutions in developing and deploying space-based solutions.

Chapter II. International peace and security

- Advocate for peaceful uses of space: Champion the adoption of international treaties and protocols that ensure the peaceful exploration and utilization of space, preventing arms races and militarization.
- Enhance space security capabilities: Support the development of national and regional space-based monitoring and tracking systems to combat illegal activities, improve border security, and promote maritime safety in Africa.
- Promote transparency and confidence-building measures: Encourage information sharing and collaboration between African nations and international space agencies on space activities, fostering trust and preventing misunderstandings.
- Establish a conflict resolution mechanism: Create a dedicated platform for resolving disputes related to space activities in Africa, ensuring peaceful settlement and promoting regional stability.
- Support the creation of a global information-sharing platform for space situational awareness to enhance the tracking of space debris and potential security risks.

- Integrate space-based tools for peacekeeping: Utilize satellite imagery and communication technologies for evidence-based decision-making to improve peacekeeping operations, enhance situational awareness, and protect civilians in conflict zones.

Chapter III. Science, technology and innovation and digital cooperation

- Invest in STEM education: Increase access to quality Science, Technology, Engineering, and Mathematics (STEM) education at all levels across Ghana and Africa, specifically focusing on space science and technology to build the next generation of space experts.
- Establish regional research and development hubs: Create dedicated centers for collaborative research and development of space-based technologies, fostering innovation and knowledge exchange across African nations.
- Promote open-source data sharing and open knowledge: Encourage the creation of open-source platforms for sharing space-related data and research findings, enabling broader access, accelerating innovation and fostering collaboration in research and development for sustainable agriculture practices.
- Foster South-South and North-South technology transfer: Facilitate collaborations between African countries and international space agencies to transfer space technology and expertise, accelerating technological progress in Africa.
- Bridge the digital divide: Implement initiatives to expand internet access and digital literacy across Ghana and Africa, ensuring equitable participation in the space economy.

Chapter IV. Youth and future generations

- Develop space-focused youth outreach programs: Organize workshops, hackathons, and educational initiatives to inspire and engage young people in Ghana and Africa with space science and technology, nurturing future generations of scientists and engineers.
- Incorporate space education into school curricula: Integrate space-related topics into primary and secondary school education, fostering scientific curiosity and preparing students for careers in the space sector.
- Establish mentorship programs: Connect experienced space professionals with young Ghanaians and Africans through mentorship initiatives, providing guidance and career development opportunities.
- Host regional space camps and competitions: Organize engaging space camps and competitions for African youth, encouraging teamwork, innovation, and problem-solving skills while stimulating interest in space exploration.
- Advocate for programs that engage and empower youth in the agriculture sector, sustainable use of the natural resource endowment, promoting innovation, entrepreneurship, and integrating space technologies in farming practices.
- Empower young women in space: Implement targeted programs and initiatives to encourage girls and young women in Ghana and Africa to pursue careers in space science and technology, promoting gender equality.

Chapter V. Transforming Global Governance

- Advocate for African representation in international space governance bodies: Push for increased representation of African nations and experts in the decision-making processes of international space agencies and organizations.
- Promote inclusive global space policy development: Ensure that the voices and concerns of African nations are incorporated into the development of international space policies and regulations, reflecting the continent's unique needs and aspirations.
- Strengthen international cooperation in space exploration: Encourage collaboration between African nations and international space agencies on joint space exploration missions and research projects, fostering knowledge sharing and technological advancement.
- Develop ethical guidelines for space activities: Advocate for adopting international ethical frameworks and norms that govern the responsible and sustainable use of space technology, addressing issues like environmental protection, resource extraction, and space debris.
- Promote global dialogue on space for development: Organize regular forums and conferences to bring together governments, scientists, private sector companies, and civil society organizations to discuss and share best practices for harnessing space technology for global development.
- Global Space Agriculture Task Force: Propose the establishment of a Global Space Agriculture Task Force under the United Nations, tasked with coordinating international efforts, sharing best practices, and monitoring progress in space-driven agriculture