

International Cooperation, Challenges, and New Horizons (1)
International Cooperation, Challenges, and New Horizons - Session 2 (2)

Author: Ms. Leyla Bayramova
Azerbaijan

Mr. Anand Nagesh
Global Academy of Technology Hostel, India
Ms. Emebet Mehabaw Tegegne
Space Generation Advisory Council (SGAC), Ethiopia

UNIFIED DISASTER ASSISTANCE AND INFORMATION (UDAI) PLATFORM FOR BRICS+
COUNTRIES

Abstract

Despite the rapid development of technology on-ground, nature remains unpredictable and dangerous to human life hence monitoring natural disasters using Earth remote sensing (ERS) satellite helps to minimize such impact by informing concerned authorities and population promptly, coordinating evacuations, and assessing damage. Unlike ground-based methods, satellite data allows for real-time observation over wide areas with high resolution, which streamlines disaster response and improves the accuracy of analysis. By coordinating satellite resources, BRICS+ countries can develop a more robust and resilient infrastructure for addressing both immediate crises and long-term sustainability goals. The proposed collaborative open-source platform described in this paper would allow countries to leverage the International Charter Space and Major Disasters framework. This initiative can greatly improve disaster management by using high-resolution satellite data for early warnings, damage assessments, and efficient resource allocation. This would enhance responses to floods in India and Brazil, aid wildfire control in South Africa, provide landslide alerts in Russia and China, and support cross-border flood cooperation. Agricultural monitoring would also improve food security through drought alerts, and post-disaster imagery would speed up reconstruction. By pooling resources and increasing data accessibility, BRICS+ nations can bolster regional resilience and can develop and maintain a unified and advanced geospatial platform for disaster management at reduced per-country cost, and the involved countries can not only make their regions more resilient to disasters but also contribute to global security by providing access to space data to common citizens. In times of natural disasters or emergencies, member countries could request satellite imagery and data for monitoring and response, fostering a strong sense of mutual support and solidarity in handling crises. For example, countries like Russia, India, and South Africa, with such a collaborative initiative would contribute significantly to domestic and regional disaster response strategies and improve overall resilience against natural calamities. In addition to disaster management, this could provide data for a range of applications, including environmental monitoring, agriculture, urban planning, and resource management. As mentioned, we are proposing in this paper the creation of a unified BRICS+ platform for sharing remote sensing data, which would accelerate emergency coordination and allow countries to respond to disasters faster, saving lives and minimizing damage.

Keywords : BRICS+, Remote sensing, Disaster Alert and Coordination system, Data Sharing Platform, Response and Relief