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Is Space R&D Truly Fostering A Better World For Our Future? (2)

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COULD SPACE INFRASTRUCTURES MONITORING THE EFFECTS OF CLIMATE CHANGE
EMPOWER WOMEN?

Abstract

While the adverse effects of climate change are affecting the entire globe, there is abundant research revealing how women are disproportionately impacted. Women tend to have limited control over resources, scarce decision-making authority, and lower incomes compared to their male counterparts. Due to the overrepresentation of women in the agricultural sector (accounting for 60 to 80 percent of food production in the developing world), climate change-induced phenomena such as drought, flooding and pest amplify women's vulnerabilities. Space infrastructures and technologies contribute significantly to the monitoring of climate change effects, including crop monitoring and weather forecasting. Recognizing that the link between space infrastructures and individuals' quality of life is not always apparent, this paper aims to bridge this gap by showcasing the tangible impacts of space solutions on people's daily lives. It attempts to demonstrate how space technology has the potential to improve the conditions of women in low- and middle-income countries who are disproportionately affected by climate change. Drawing on a few case studies from space activities, this paper highlights gender-specific benefits arising from the utilization of space infrastructure tools for agricultural support, which could also ultimately empower women. By examining the reach of these projects, this paper highlights the potential for a more systemic approach to evaluating the socio-economic impacts of space infrastructures from the perspective of individuals from diverse communities.