# BENEFITING FROM SPACE TECHNOLOGY FOR MONITORING AGRICULTURAL PRODUCTION AND ACHIEVING SUSTAINABLE DEVELOPMENT GOALS

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Food and Agriculture Organization of the United Nations





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# Leveraging space technology for agricultural development and food security

### A new publication available now!

#### 2025



https://www.unoosa.org/oosa/oosadoc/data/documents/2016/stspace/stspace69\_0.html https://www.unoosa.org/res/oosadoc/data/documents/2025/stspace/stspace89\_0\_html/st\_space\_089E.pdf



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### Space technologies for efficient, inclusive, resilient and sustainable agri-food systems

Space technologies to support to **food security**, **monitoring natural resource**, and **provision of information for policy relevant solutions** based on **geospatial data**, **information** and **services**.



FAO supports development plans, growth strategies and decision-making processes in member states through the transformation to MORE efficient, *inclusive, resilient* and *sustainable* agri-food systems for better production, better nutrition, a better environment, and a better life, *leaving no one behind*.

https://www.fao.org/strategic-framework/en



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## **UN-GGIM** Fundamental data themes





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# Integrated agricultural information for sustainable development



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## Bringing partners for collaborative actions for sustainable development

- **Organizations:** ECOWAS, CILS, AGRYHMET, OSS, FAO, NASA SERVIR
- **17** countries : Benin, Burkina Faso, Cape Verde, Côte D'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, and Togo.
- **Area:** 8 million square kilometers.
- **Ecological belts**: region can be sub-divided based on climate and vegetation characteristics into **5 ecological belts** including Guineo-Congolian, Guinean, Sudanian, Sahelian and Saharan belts
- LC legend used: Yangambi (1957), FAO LCCS (1996), Anderson (1996), CORINE (1994) & others







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Cites Cites Cites Cites Cites Cites	id	Decade	Nb lege nd	Nb LC dataset
1714 304	1	> 2000	2	18
Nanitaria Ngan Ngan	2	2000 - 2010	4	54
Secol Secolars	3	2011- 2020	27	44



Regional Schema

West African Land Cover Reference System

# Space technologies for agricultural monitoring

# Thank you for your attention!

OOXADIAA

https://www.fao.org/geospatial/en/



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#### Resources

Standards: https://committee.iso.org/sites/tc211/home/projects/projects---complete-list/iso-19144-2.html Softwares: https://www.fao.org/geospatial/resources/tools/land-characterization-system-software/en/ LCLR library: https://data.apps.fao.org/lclr-tool/en/ Processing: https://sepal.io/ Dissemination: https://www.fao.org/hih-geospatial-platform/en/ Tools & services: https://www.fao.org/digital-services/en West Africa land cover reference system: https://openknowledge.fao.org/items/31a46e74-cccb-496d-a844a93791b0ef1a Collaborative process: https://doi.org/10.3390/land13101712





