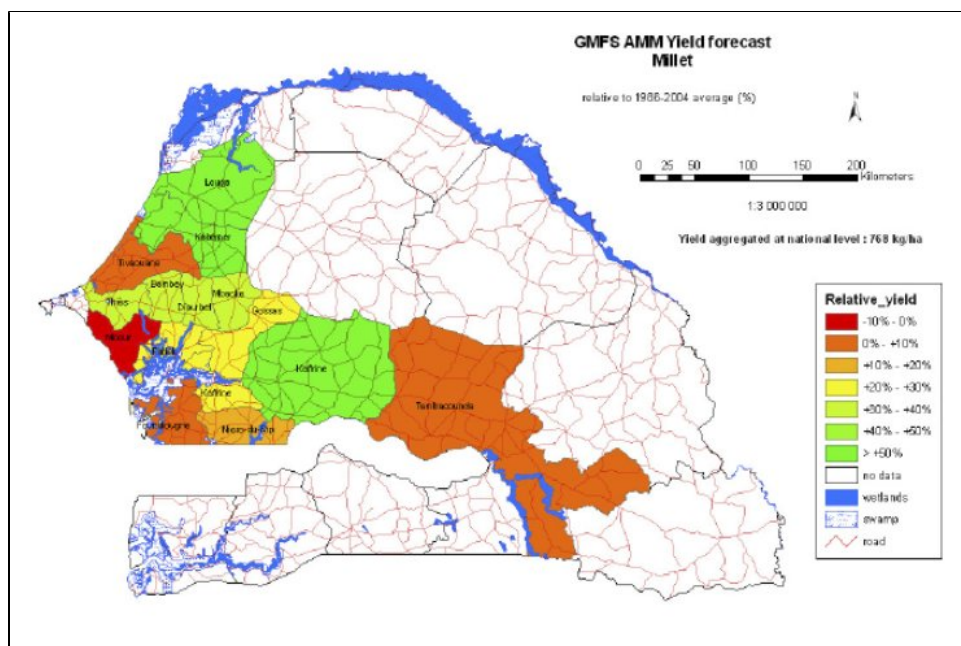


Extract of MARS bulletin Vol 20 No 9 (European Union 2012). A pan-European crop monitoring and yield forecasting service based on satellite observations.



Relative yield forecast for millet in Senegal. Credits: University of Liège

Transparent and homogeneous data on agricultural production and estimates of agricultural output growth at country level are essential inputs to National Agricultural Statistics and Crop and Food Security Assessment Missions by the international donor community. Timely forecasted yield values are one of the key variables in early warning for food security. Moreover, they can assist agricultural subsidies control.

Yield forecast cost for 2–3 main crops over a 100.000 km<sup>2</sup> area ranges between 70 and 100 kEuro.

## References:


ESA 2013, Earth Observation for Green Growth: An overview of European and Canadian Industrial Capability

## Products

Products	Ext. Source	Descriptions	Product Standards	Ref. Project
crop forecast	crop forecaster	<ul style="list-style-type: none"> <li>Median Planting Date</li> <li>Planting Progress</li> <li>At-Planting Acreage</li> <li>Median Crop Stage</li> <li>Crop Condition</li> <li>Apparent Yield</li> <li>At-Harvest Acreage</li> <li>At-Harvest Yield</li> </ul>		
crop health (disease and stress)		Monitor crop disease and stress		
crop acreage and yield harvest (inventories / statistics)		Assess crop acreage and yield harvest		
crop types (extent, growth, health, stress)		Monitor specific crop types		
Application: crop yields		Forecast crop yields		

crop indicator		crop area estimates crop yield forecast		<a href="#">ISAC</a>
crop indicator		agriculture sustainable management precision farming & farming planification fertilizers industry phytosanitary industry		<a href="#">geoland</a>

## Success Stories

Copernicus Brief			
			

## References

Topic	Description	Key words	References
Studying crops, from outer space	The work is based on a breakthrough in the capacity to use satellite technology to measure light that is emitted by plant leaves as a byproduct of photosynthesis.	crops, photosynthesis	<a href="#">Spacedaily</a>