







# MISBAR

**MONITORING INTEGRATED SERVICES** FOR BEST ASSESSMENT OF NATURAL RESOURCES



### North-Africa Consortium needs

#### Seasonal agriculture monitoring Water abstractions monitoring Where are my irrigated parcels? Where do my crops grow? Where/what are my cultivated crops in summer How much water is used for irrigation purposes? and in winter? I need to identify the unauthorized irrigated areas I need to have a detailed crop acreage per season **Needs** I need to have an estimation of my agricultural production I need to evaluate the pressure on groundwater resources I need to analyze the changes of irrigated surfaces I need to undertake a multi-scale crop monitoring and assess the trends over time I need to analyze the changes of agricultural campaigns I need to assess the impact of climate change on irrigation over time

### Linkages between "Water" and "Agriculture"

Irrigated areas are characterized by high soil moisture and high vegetation index

Indirect estimation of water consumption is done through vegetation indices

Climate variables (rainfall,etc.) help distinguish between rainfed and irrigated crops



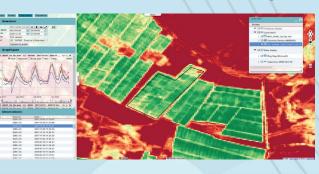
Access link: http:/misbar.oss-online.org

## **Answers provided by the MISBAR platform**

#### www.misbar.oss-online.org

Multi-scale time-series analysis

**Geoservices customization** 



Data processing relay

Intuitive access to a very wide range of EO data

### Systematic production

- Irrigated area maps at monthly basis
- Crop water consumption estimation
- Agricultural crop areas at monthly basis
- Agrometeorological variables (rainfall, etc.)
- Crop monitoring at the parcel / district levels

### **Non-Systematic production**

- Unauthorized private irrigated perimeters
- Public irrigated areas intensification rate
- Quantified pressure on groundwater resources
- Crop maps
- Yields forecast

### **MISBAR main functionalities**

- Easy and intuitive access to EO data
- Interactive 2D / 3D visualization
- "Finder" service
- Processing chains for optical and radar image processing
- Views and studies sharing through a simple link
- Time-series analysis of 16 indicators related to water and agriculture
- Easy GEOSERVICES setup, for automatic and real-time application



Optimised access via various tools











