




# Use of Space Technology for Sustainable Development in Iran

Iranian Space Agency

Prepared By:  
Abdolreza Ansari Amoli

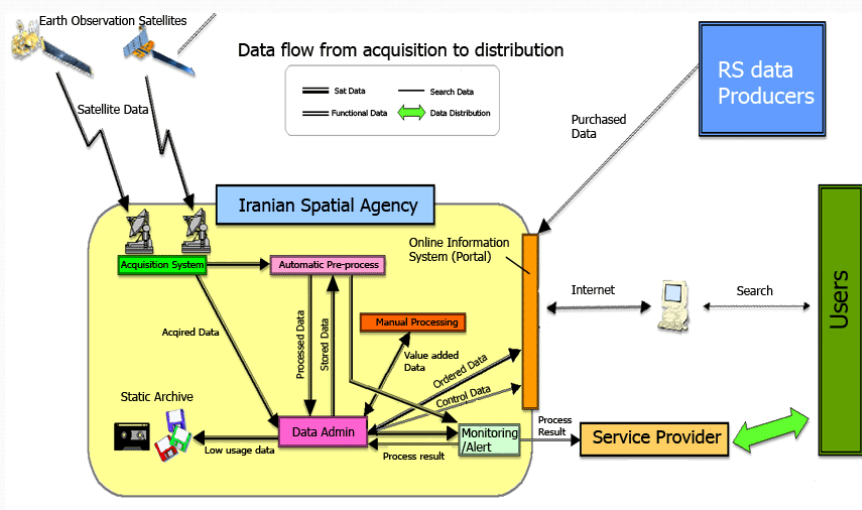


In order to employ the guidelines for sustainable development, remote sensing and geographic information system (RS/GIS) have emerged as **sub-systems of space technology**.

The application of these techniques in solving of ongoing environmental problems of Iran, as well as, for the future sustainable development of the country is described by reviewing some case studies conducted in Iranian Space Agency (ISA) and direct cooperation with the other companies and universities.

# The Establishment of National Space Geoportal for archive data management

## The general schema of the Geoportal



## ISA archive content

1. Acquired and on acquirable images from Alborz space station(High & Low Resolution )

Acquired  
NOAA/AVHRR satellite  
images since 1996  
(2 daily paths)



Acquired TERRA/MODIS  
satellite images since  
2002  
(2 daily paths)



Acquiring Chinese FY2E  
satellite images  
(24 daily scenes)

2. Bought data (High and Mid Resolution)

Several Landsat  
satellite image  
coverages of TM,  
ETM, MSS from Iran  
and the whole world



discrete IKONOS, SPOT  
and Radarsat satellite  
images of Iran boundry



Several coverages  
from satellite images  
of IRS-1C, 1D since  
2002 until 2007

## Remote Sensing sub-system

### Creating a Monitoring system based on directly acquired satellite images

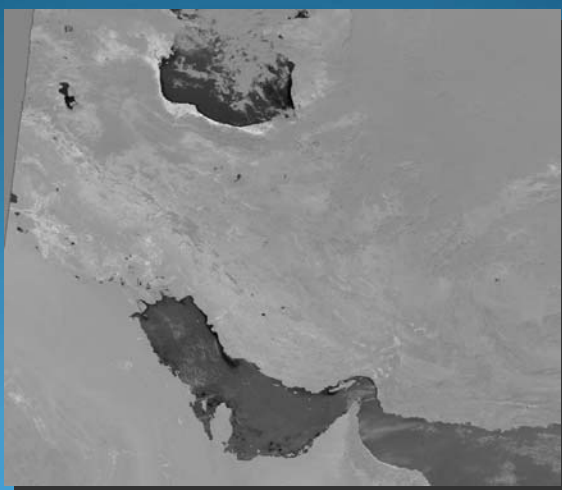
Currently, 8 products from MODIS satellite images, and 2 products from NOAA satellite images are daily produced . Samples of produced data that are monitored daily:

- ☐ NDVI "Normalized Difference Vegetation Index"
- ☐ EVI "Enhanced Vegetation Index"
- ☐ "Water Body"
- ☐ NDSI "Snow Coverage"
- ☐ LST "Land Surface temperature"
- ☐ SST "Sea level temperature"
- ☐ "Fire or Hot pixel" product from satellite images and alerting the specified authorities to be confirmed

## Geoportal products and services

### 2. Remote Sensing sub-system

NDVI "Normalized Difference Vegetation Index"

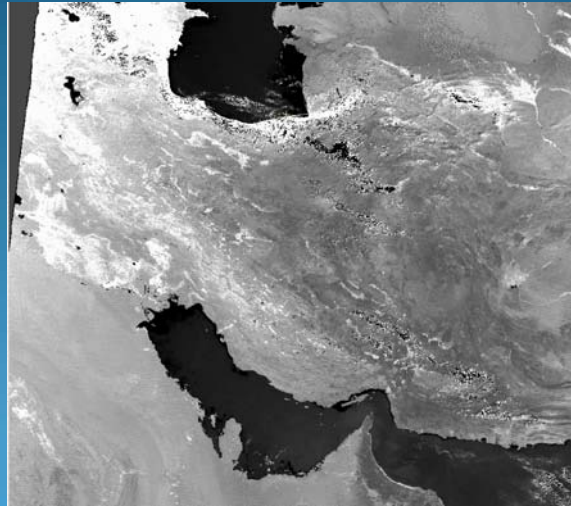


Produced daily from Terra Sensor of MODIS satellite images

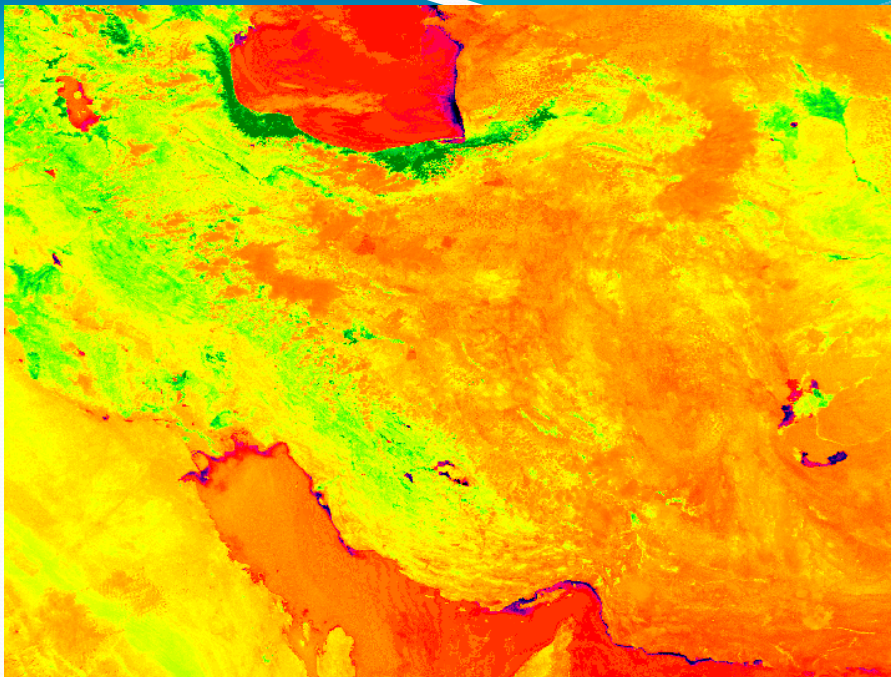


Remote Sensing sub-system

EV<sub>I</sub> "Enhanced Vegetation Index"

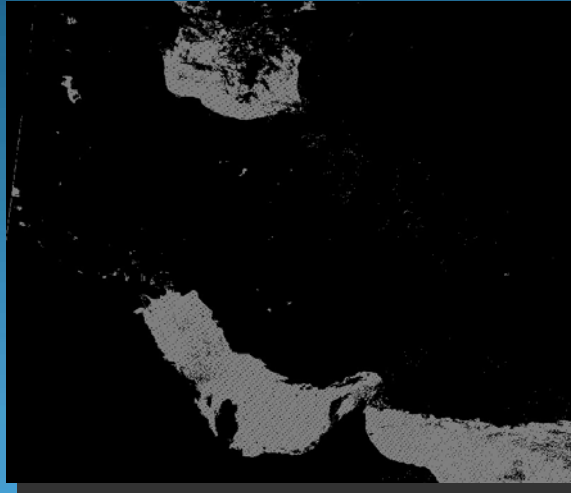


Produced daily from Terra Sensor of MODIS satellite images



Remote Sensing sub-system

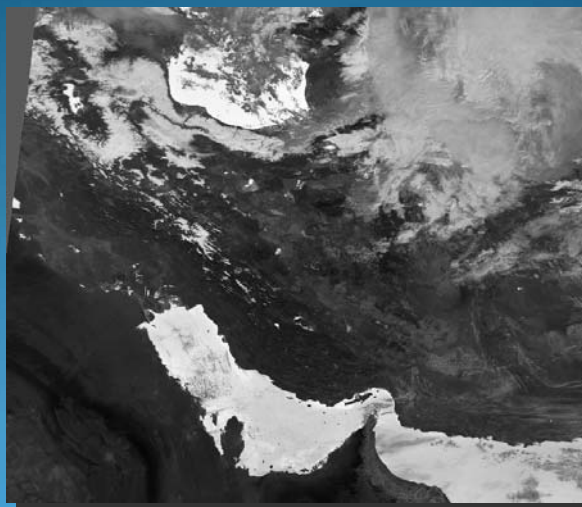
"Water Body"



Produced daily from Terra Sensor of MODIS satellite images

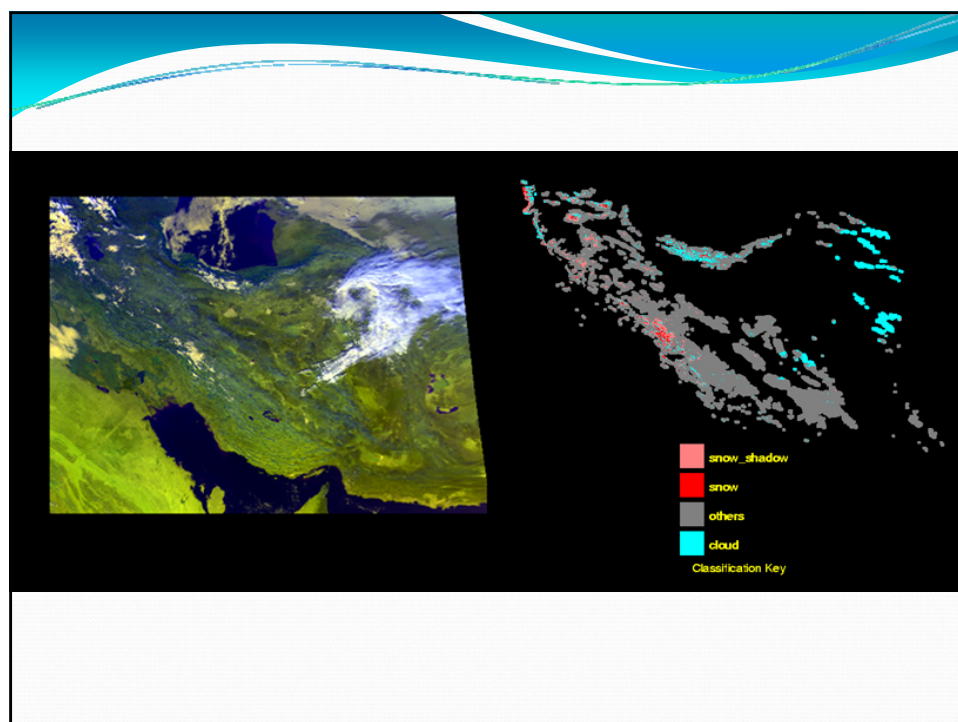
Remote Sensing sub-system

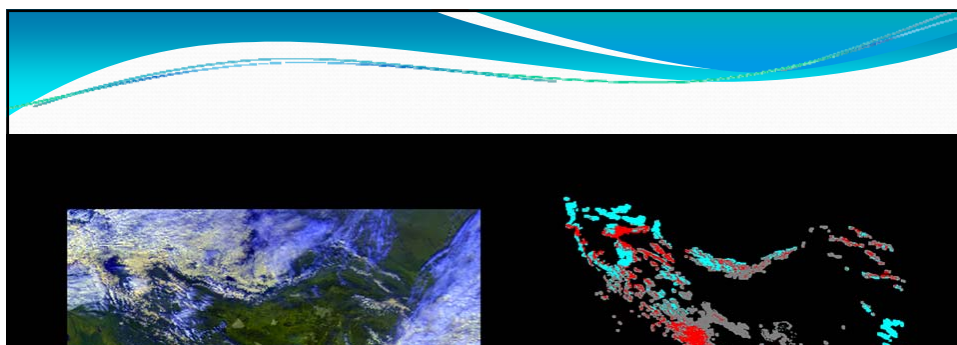
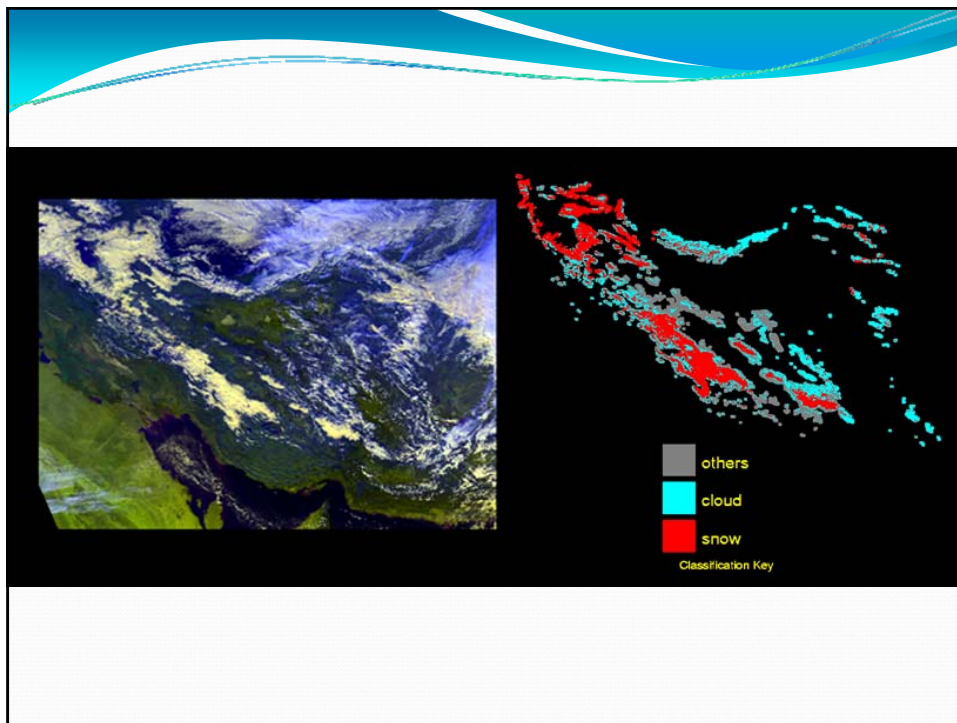
NDSI "Snow Coverage"



Produced daily from Terra Sensor of MODIS satellite images

## Snow Mapping in Iran by Using NOAA/AVHRR





预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_6157](https://www.yunbaogao.cn/report/index/report?reportId=5_6157)

