



ESA Catalogue of activities supporting UN SDGs

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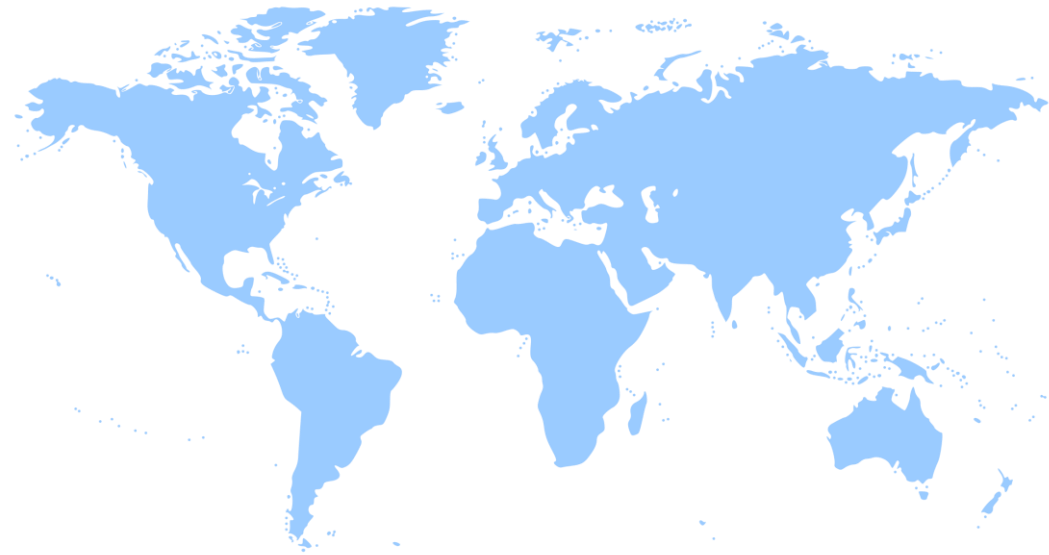
UN/Germany HLF: The way forward after UNISPACE+50 and on Space2030
Bonn, 14 November 2018

ESA and the UN SDGs - background



- ESA activities supporting sustainable development since years and specific coordinated action started beginning September 2015
- SDGs adopted on 25 September 2015

SUSTAINABLE DEVELOPMENT GOALS



➤ Linking the two to make visible for potential users what space can bring



Support from space activities

- Space projects, applications, technologies or services, from all domains, are tools that can support **all the 17 SDGs** for :

Monitoring the indicators



Achieving the targets



Online catalogue since 15 March 2018



esa SUPPORTS THE **SUSTAINABLE DEVELOPMENT GOALS** 17 GOALS TO TRANSFORM OUR WORLD

PEOPLE PROSPERITY PLANET PEACE PARTNERSHIPS

Partnerships SDG17 Partnerships for the goals

A toolbox for the Sustainable Development Goals

Latest news

Additional information

- ESA: Space for
- UNOOSA
- SDGs: Sustainable

<https://sdg.esa.int>
sdg@esa.int



@spaceforearth
@IDB75

SDG14 Life below water

ACTIVITY

Automated Identification System (AIS) Detection from Space

Thu, 03/08/2018 - 19:40

The Automated Identification System (AIS) is a ship-based transponder system designed to transmit information such as vessel identity, position, heading, nature of cargo and so on to other ships and the shore...

Prosperity SDG8 Decent work and Economic Growth Planet SDG14 Life below water

ACTIVITY

Ballast water treatment installation

Thu, 03/08/2018 - 19:40

Using advanced grey water treatment technology for the treatment of ballast water on board ships...

People SDG6 Clean Water and sanitation Prosperity SDG8 Decent work and Economic Growth Planet SDG14 Life below water

ACTIVITY

Coastal TEP

Thu, 06/21/2018 - 13:08

Through the provision of access to large volumes of EO and in-situ data, computing resources, algorithm development space and the fundamental processing software required to extract temporal and spatial information from Big Data, C-TEP shall provide a dedicated service for the observation and mon...

Planet SDG14 Life below water

ACTIVITY

Cospas-Sarsat antennas

Thu, 03/08/2018 - 19:40

For almost thirty years now, the Cospas-Sarsat worldwide Search and Rescue satellite system has been in operation, rescuing more than 26 000 distress victims...

Prosperity SDG11 Sustainable cities and communities Planet SDG14 Life below water

ACTIVITY

Cymons

Thu, 03/08/2018 - 19:40

Data of water quality parameters at a large spatial and temporal scale...

People SDG6 Clean Water and sanitation Planet SDG14 Life below water

Filter activities

Title

Description

Organization

Choose some options

Directorate

Choose some options

Type

Choose some options

Status

Choose some options

Target

Choose some options

Keywords

Choose some options

Apply

Advanced filter and download

For more information about the SDG targets, please visit this link.

Download Listed Activities:

Download file

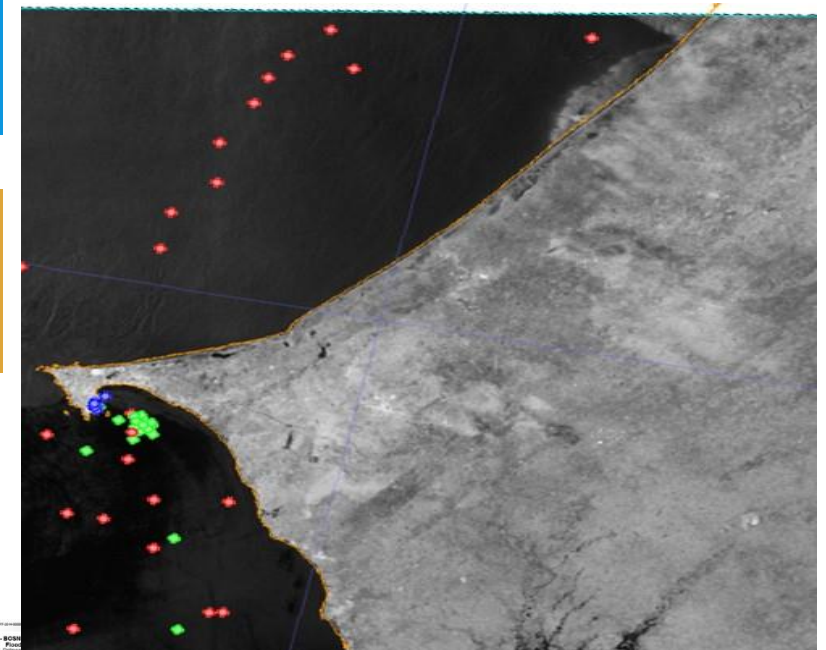
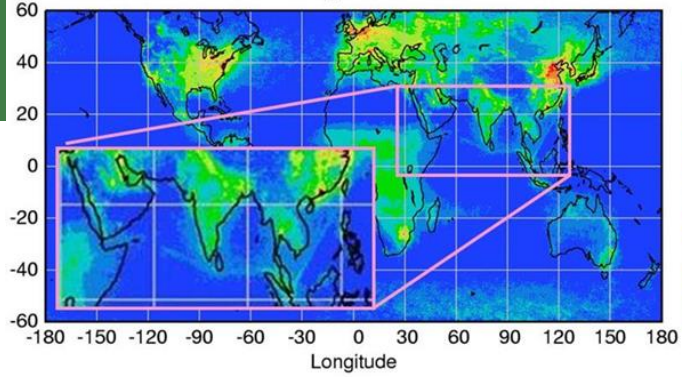
Additional information

- ESA: Space for Sustainable Development
- UNOOSA
- SDGs: Sustainable Development Knowledge Platform

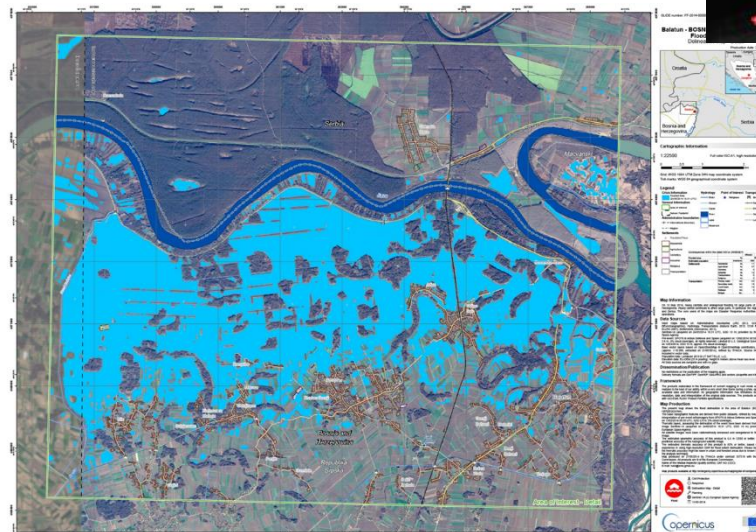
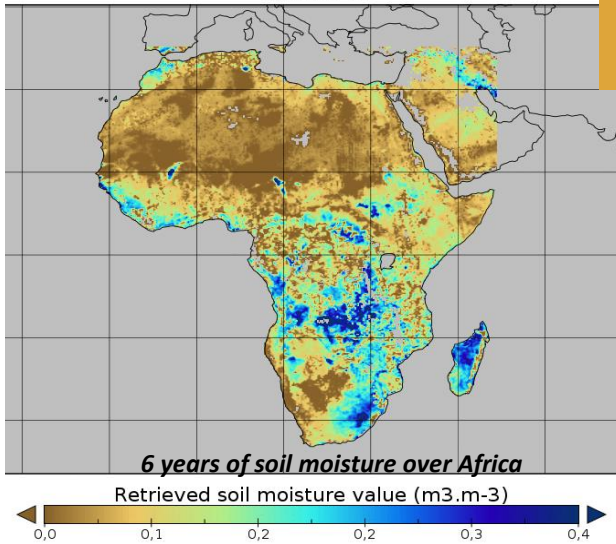




SCIAMACHY NO₂: 08.2002 - 07.2005



SMOS mean monthly soil moisture (2011-2016)
Time: 1 of 72





DFMS
Drought and Flood Mitigation Service



SenZitall





©Firmus



©Remote Diagnostic Technology Ltd



EUROPEAN SPACE AGENCY ABOUT US OUR ACTIVITIES CAREERS AT ESA FOR MEDIA FOR EDUCATORS FOR KIDS

space for education

ESA EDUCATION ESA ACADEMY TEACHERS' CORNER

ESA ACADEMY TEACHERS' CORNER ESA KIDS

Search here

TEACH WITH SPACE

Classroom resources

ESA's Teach with Space collection, developed in collaboration with the European Space Education Resources Office (ESERO) network, is a set of innovative curricular classroom resources that use space as the entry point to run STEM lessons during school hours. These resources include teaching guidelines, student activities, and experiment kits.

More classroom resources

- Earth and Environment
- Astronauts and International Space Station
- Rockets and Technology Resources
- Solar System and Universe

teach with space Primary classroom resources

teach with space Secondary classroom resources

LATEST NEWS

ESERO Be speaking 30 October 2018

Last update: 28 September 2018



Massive Open Online Courses

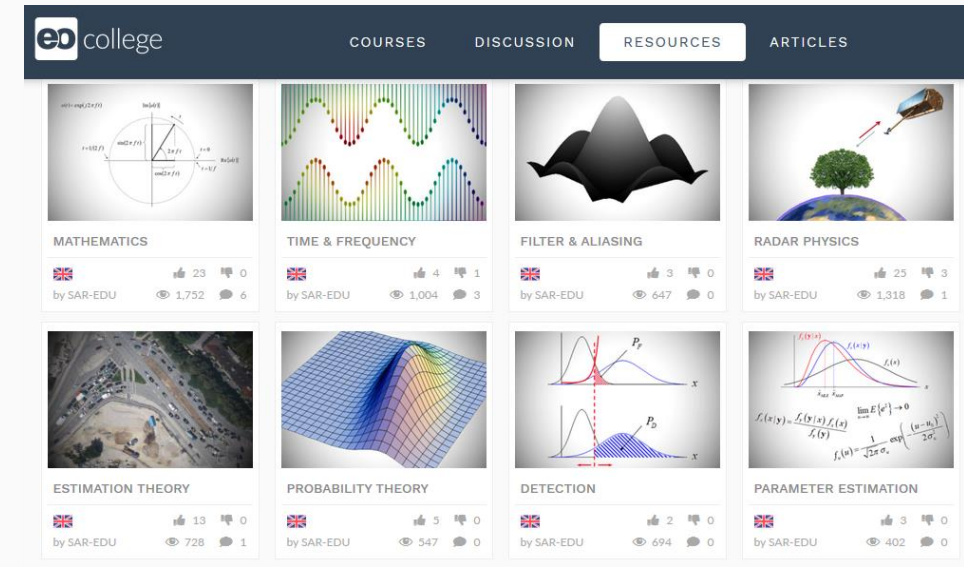
- Basic **Radar** Course
- Advanced Radar Courses
- Courses on SDGs **‘Zero Hunger’** & **‘Climate Action’**
- Courses on **Land** applications

Learning resources

- Radar remote sensing
- **Hyperspectral** remote sensing
- Material under **Creative Commons** License

Aim (proposed to ESA by DLR)

- Creation of a **central hub** for EO eLearning
- Creation of an **ecosystem** of EO MOOCs

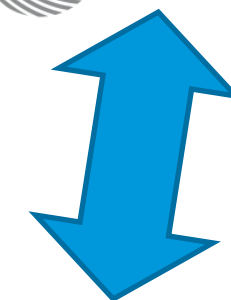


- Available
- In Production
- Proposed

- 🚀 Launch 2017
- 👤 > 8.500 registered users
- 🕒 > 25.000 h spent on page
- 👁️ > 750.000 pageviews

Main challenges – Capacity building

- Making the link between space (experts) and ground (users)
 - Explain what is achieved with space and how to get it
 - Speaking the language of users / meeting them
 - But also understanding the needs and “translating” them into space projects
- Making evident the use of space assets or derived products is simple: there are “just” tools
- Addressing non-space policies for support to space programmes
- Support those able to “pass the message” (including teachers) – **ESA unites with other actors**



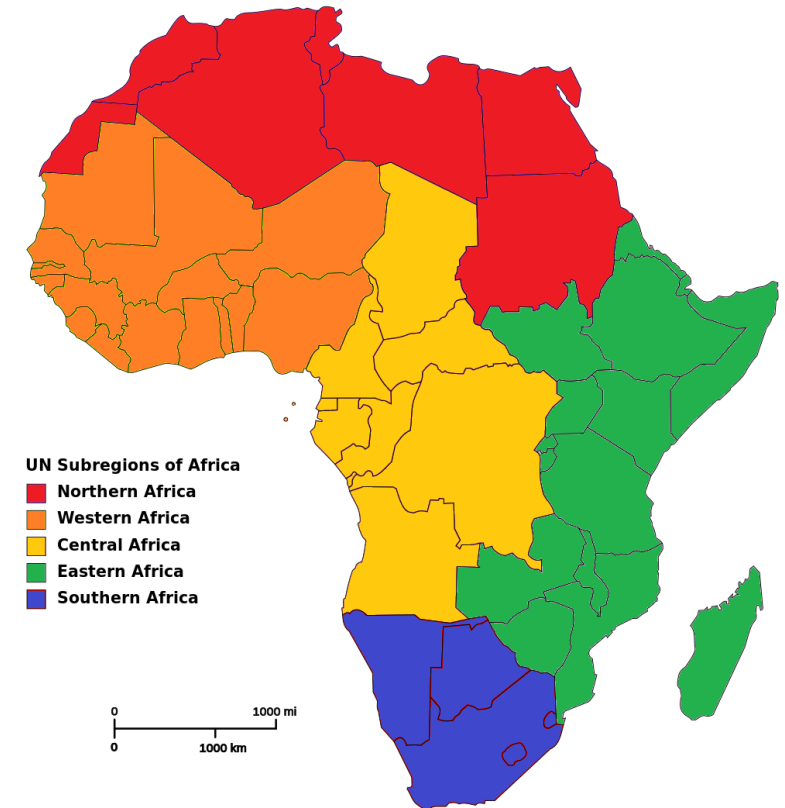


Introduction: Africa

- Second largest continent
- Population: 1.2 billion
- 20% of the Earth's total land area

Major challenges

- Health
 - 25% of world disease burden
 - 2% of world doctors
 - 19 out of 20 countries battling maternal mortality (WHO, African regional Health report)
- Food insecurity
- Education : 30% of children are out of school (UIS)



Africapolicyreview.com



UNITED NATIONS
Office for Outer Space Affairs

Regional Policies /Initiatives to solve the challenges



Science, Technology and Innovation Strategy for Africa (STISA-2024) Strategy

Priority 1: Eradicating hunger and ensuring food and nutrition security;

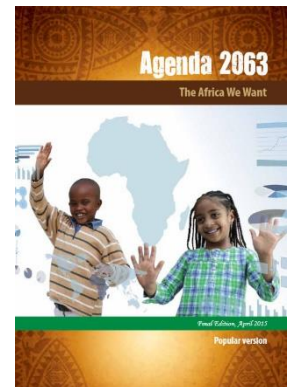
Priority 2: Prevention and control of diseases

African Union: AGENDA 2063

Guiding AU vision

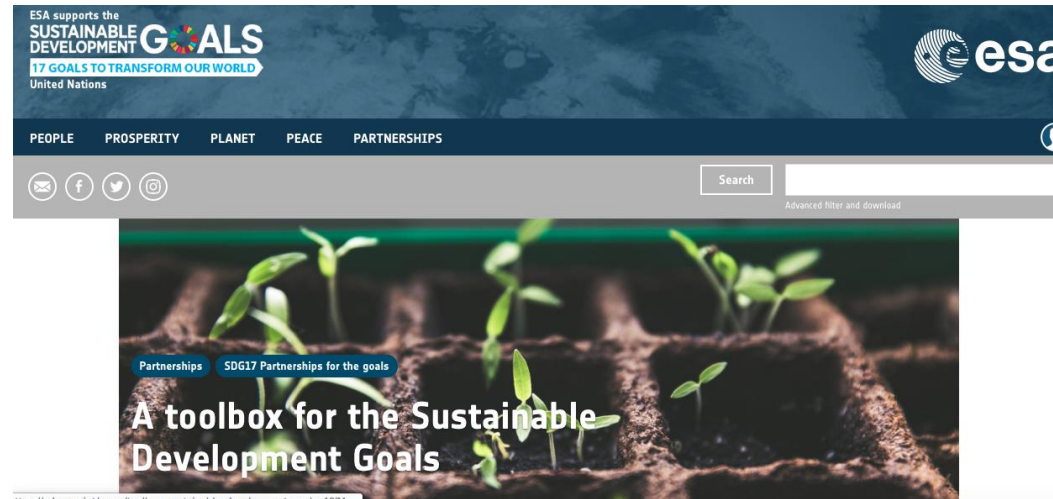
“An integrated, prosperous and peaceful Africa, driven by its own citizens and representing a dynamic force in international arena”

Aspiration 1: A prosperous Africa based on inclusive growth and sustainable development





ESA CATALOGUE, SUSTAINABLE DEVELOPMENT GOALS AND AFRICA



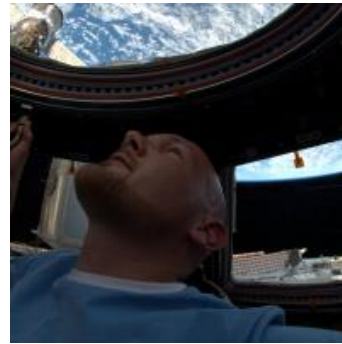


Space Girls Space Women



SDG4 Quality Education and SDG5 Gender Equality.

EPO Earth Guardian

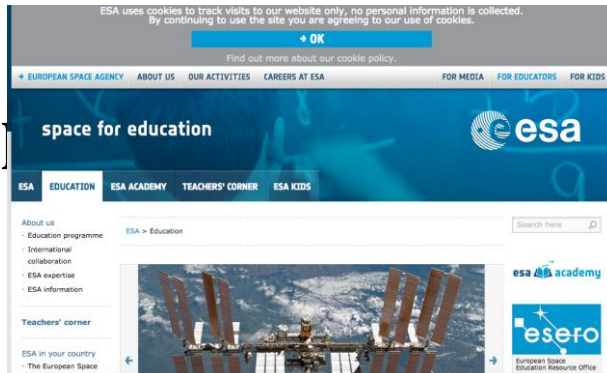


SDG4 Quality Education, SDG11 Sustainable cities and communities,
SDG13 Climate action, SDG17 Partnerships for the goals

ISIDE4Africa (I4A)



SDG1 No poverty, SDG4 Quality Education, SDG9 Industry, Innovation and Infrastructure, SDG17 Partnerships for the goals



HLF, Bonn, Germany, 12-16 November, 2018



AMAZON

A highly compact device for vital-sign monitoring and remote diagnosis



[SDG3 Good Health and Well-being](#)

Already tested in some African countries
Applicable in pre-hospital care deployed

RCST

Remote Communities Services Telecentre



[SDG3 Good Health and Well-being](#)

[SDG4 Quality Education](#)

VG-Tropics

A service platform to support early detection of livestock diseases, identification of livestock population & related disease outbreak risk, and planning of livestock surveys



[SDG2 Zero Hunger](#)



ASAP-FS

Application of Space-based products and services for Agriculture for specific national, regional and local need (Poland)



[SDG2 Zero Hunger](#)
[SDG1 No poverty](#)

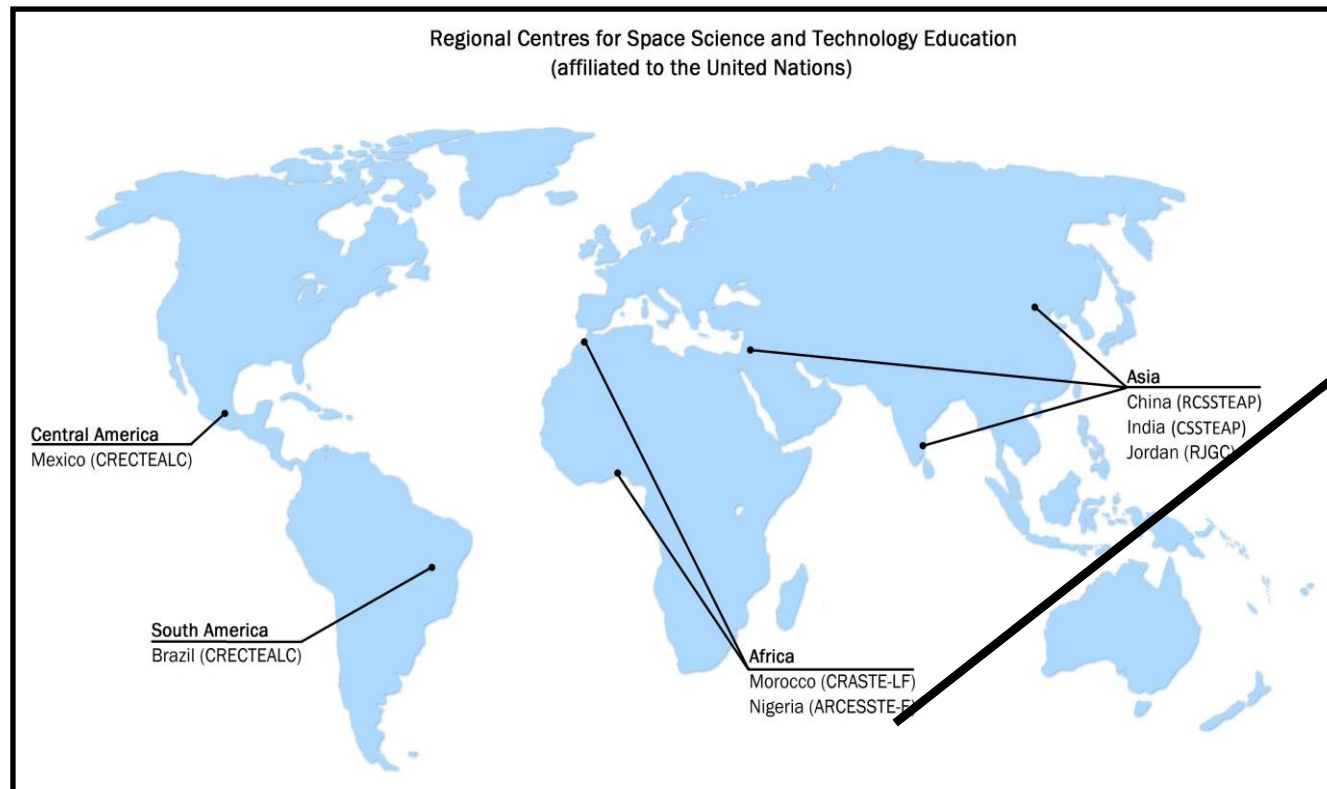
IAP-Copernicus

Business Service Platform for Public Safety and Food Security



[SDG2 Zero Hunger](#)
[SDG8 Decent work and Economic Growth](#)
[SDG9 Industry, Innovation and Infrastructure](#)
[SDG12 Responsible consumption and production](#)

Role of ARCSSTEE and other UN-Regional Centres in 21st Capacity Building



- The African Regional Centre for Space Science and Technology Education in English (ARCSSTE-E), Obafemi Awolowo University campus, Ile-Ife, Nigeria.
- Inaugurated in Nigeria on 24th November, 1998 by the UN Office for Outer Space Affairs (OOSA).
- Also serves as an activity centre of NASRDA

ARCSSTE-E: Mission/Mandate



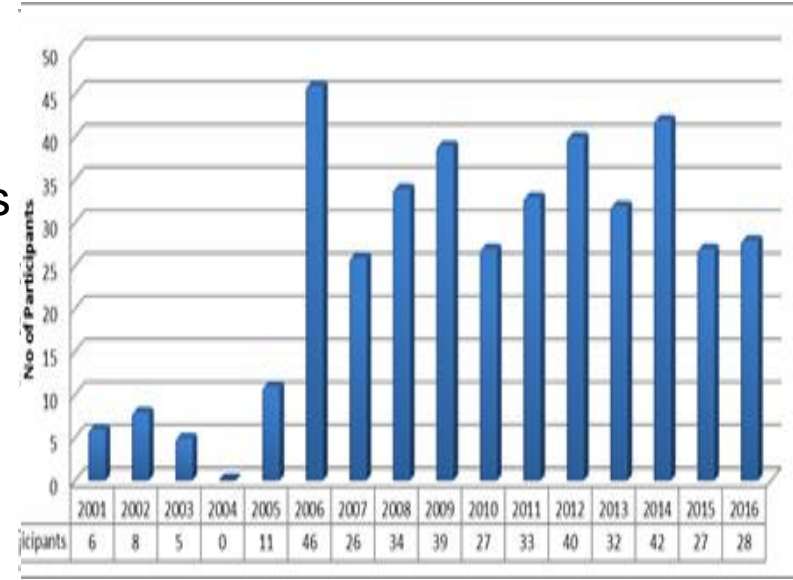
- To build indigenous capacities in SST applications
- To create awareness, sensitise and inspire students, lawmakers & the general public on Space
- Serve as an educational, Research and Training institution capable of high attainment in SST;
 - **Remote Sensing/GIS,**
 - **Satellite Communication,**
 - **Satellite Meteorology/Global Climate**
 - **Basic Space and Atmospheric Science.**
 - **Global Navigation Satellite Systems (GNSS)**
- Boost the growth and capacities of the participating African countries.
- Enhance Anglophone countries knowledge, understanding and skills in SST applications



ARCSSTEE Capacity Building Programmes

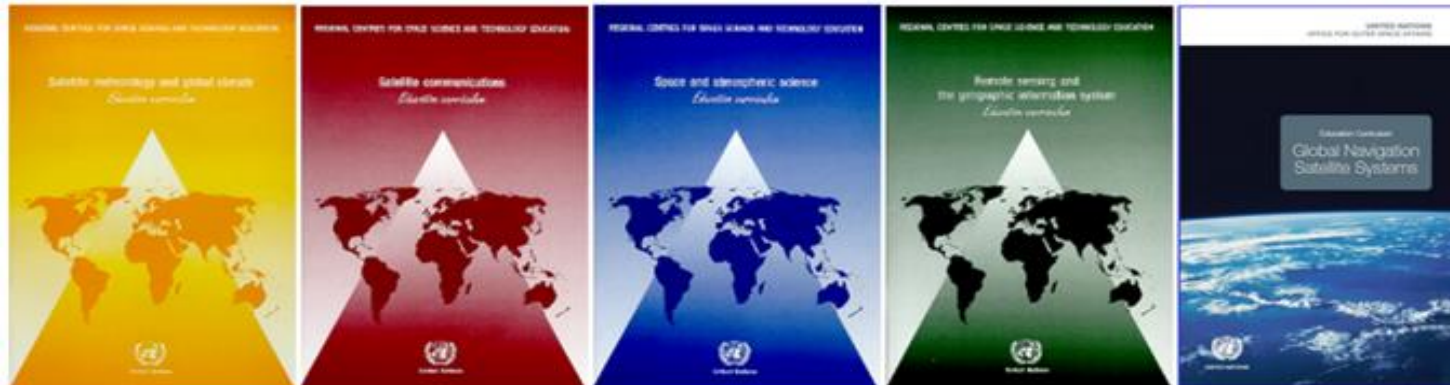
POSTGRADUATE DIPLOMA PROGRAMME

- **Duration:** 9-month Post-graduate Diploma Programme in five key areas of Space Science and Technology (SST) Education
- **International Participants** are offered full scholarship covering: - Tuition Fee, Accommodation, Medical Services, Travel Ticket, etc.



* 17 of the 24 Countries have participated in the PGD Programme to date

Botswana	2
Cameroon	33
Congo DRC	1
Ethiopia	4
Gambia	1
Ghana	9
Kenya	15
Liberia	12
Malawi	7
Nigeria	334
Sierra Leone	1
Sudan	15
South Africa	1
Tanzania	5
Uganda	11
Zambia	3
Zimbabwe	7
Total	473





International Collaboration

- Won the GMES and Africa support programme grant for flood Assessment in West Africa



International Committee on
Global Navigation Satellite Systems

