

Enhancing existing Capacity  
Building partnerships and forging  
new ones



Alliance of Regional Centres

Alliance of Regional Centres (ARC)  
for Space Science & Technology Education

Presented on behalf of  
the Directors of  
Regional Centres  
by

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ARCSSTE-E, Nigeria

61<sup>st</sup> Session of the  
Committee on the  
Peaceful  
Uses of Outer Space  
[COPUOS]  
Vienna, 20 - 29 June  
2018



Bringing the benefits of Space to Humanity



# Global Agenda in support of Sustainable Development

## MDGs (2000-2015)



**8 Goals**  
**18 Targets**  
**48 Indicators**  
**189 UN Members**  
**22 Inter. Organ.**

## WSSD (2000)

.. to Create a World where Decisions and Actions are informed by Coordinated, Comprehensive and Sustained Earth Observations

## Rio+20 (2012)

Resolution A/RES/66/288, popularly known as "The Future We Want"

## SDGs: 2016 – 2030



"Transforming Our World: the 2030 Agenda for Sustainable Development"  
 (United Nations Resolution A/RES/70/1 of 25 September 2015)

**17 Goals**  
**169 Targets**  
**232 Indicators**  
**193 UN Members**

"We don't have Plan B because there is no Planet B" - Ban Ki-moon (2015)

# Global Agenda in support of Sustainable Development - 2

## SDG Goals & Targets

### - Humanity and the Planet (The 5Ps)



## Goal 17: Partnership

### Key to Implementation

- Finance
- Technology
- Capacity Building
- Trade
- Systemic Issues

## Global Goals: 2015 - 2030

- SDGs [2016 - 2030]
- Sendai Framework for Disaster Risk Reduction [2015 - 2030]
- Paris Agreement on Climate Change [2015 - 2030]

**Capacity Building** in Space Science and Technology are critical for developing competencies to efficiently respond to societal challenges and addressing these Global goals.

- ❖ The Planet Earth and its Ecosystems are our “**Common Home**”.
- ❖ Space is a “**Global Commons**” and thus the advancement of space technology should benefit all Member States - [UNOOSA](#)

## To benefit from full Potential that Space Offers:

- Highly Qualified Space Scientists and Application developers in National Institutions;
- Space Policy and Space Law Experts.

# Global Agenda in support of Sustainable Development - Making it Work

## United Nations General Assembly Resolutions

**37/90 of 10th December 1982 - UNISPACE '82**

‘That the United Nations Office for Outer Space Affairs (UNOOSA), through its Programme on Space Applications should focus its attention, interalia, on building of indigenous capacities for the development and utilization of Space Science and Technology, particularly at the local level’

**45/72 of 11 December, 1990 - UN-COPUOS**

‘That the UN should lead, with the active support of its specialized agencies and other international organisations, an international effort to establish Centres for Space Science and Technology Education at the regional level in existing national/regional educational institutions in the developing countries’

**A/RES/50/27, of 6 December 1995 - UN-COPUOS**

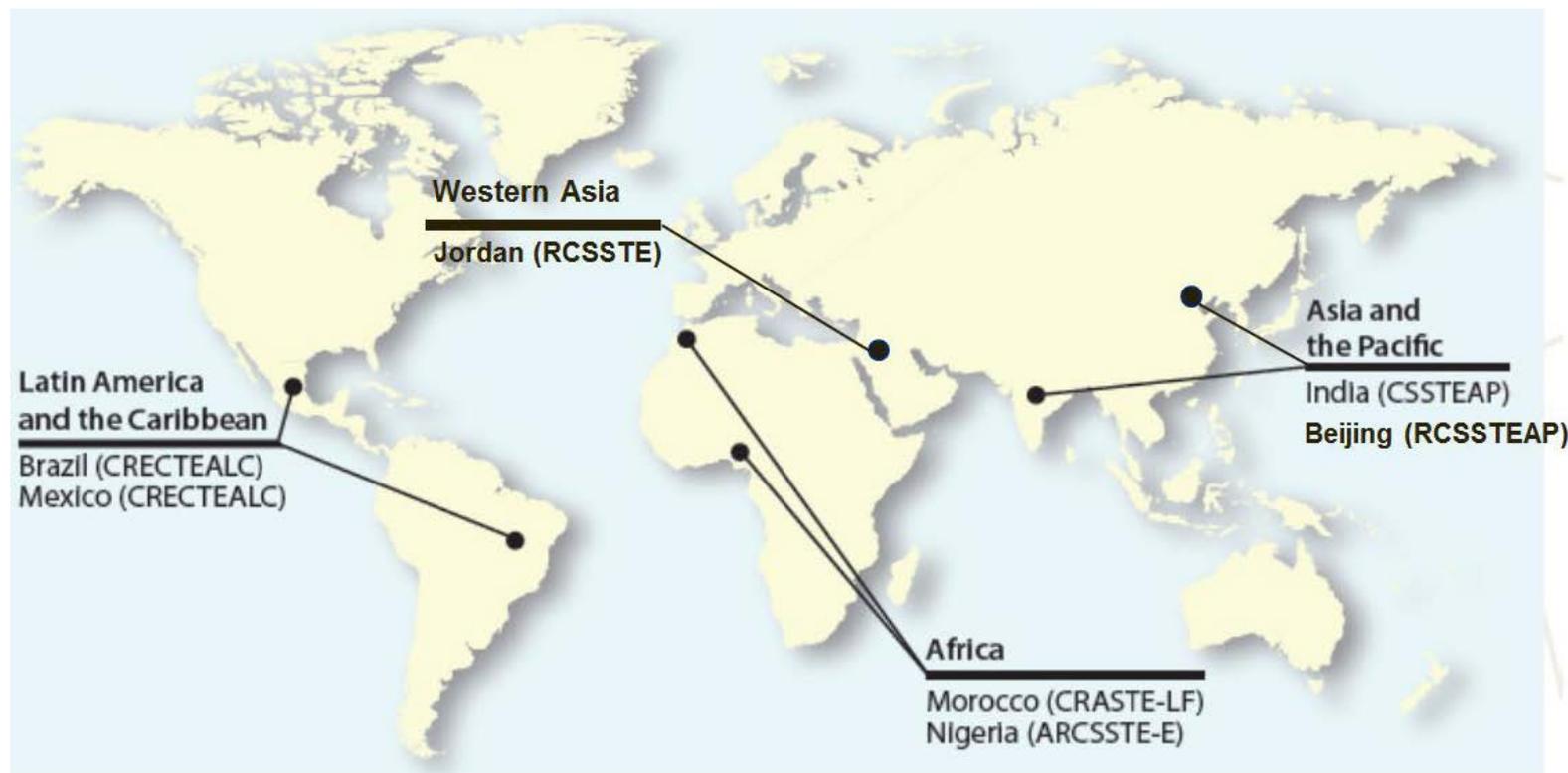
‘That the Regional Centres for Space Science and Technology Education “be established on the basis of affiliation to the United Nations as early as possible and that such affiliation would provide the centres with the necessary recognition and would strengthen the possibilities of attracting donors and of establishing academic relationships with national and international space-related institutions”

# Global Agenda in support of Sustainable Development - Making it Work

## UNISPACE+50 Thematic Priority 7: Capacity Building for 21st Century

- New innovative and effective approaches to Capacity-Building and Development Needs
- Strengthen comprehensive capacity-building and outreach activities
- Develop infrastructure for cross-sectoral and integrated applications
- Enhance existing partnerships and forge new ones
- Promote STEM education, especially for Women in developing countries

# Establishment of Regional Centres for Space Science & Technology Education



- **India (1995)** (ESCAP) 16 Countries 2,129,187,125
- **Morocco (1998)** (ECA) 13 Countries 251,000,985
- **Nigeria (1998)** (ECA) 25 Countries 831,790,493
- **Mexico and Brazil (2003)** (ECLAC) 2 Countries 338,451,554
- **Jordan (2012)** (ESCWA) 11 Countries 114,565,389
- **China (2014)** (ESCAP) 10 Countries 2,099,956,572
- **Total Targeted Population** UN-2017 Pop. Est. **5,764,952,118 (76.3%)**

# The Regional Centres at a Glance



## ARCSSTE-E

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Website: <http://arcsstee.org.ng/index.php/home/>  
**NIGERIA**



## CRASTE-LF

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**MOROCCO**



## CRASTE-LF

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Website: <http://crectalc.org>  
**BRAZIL/MEXICO**

# The Regional Centres at a Glance



## CSSTEAP

India Institute of Remote Sensing (IIRS), Dehradun,  
Space Application Centre (SAC),  
Physical Research Laboratory (PRL), Ahmedabad)

Tel: +91 1352740737; 2740787

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Website: <http://www.cssteap.org/>

**INDIA**



## RCSSTEWA

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**JORDAN**



## RCSSTEAP

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Email: [wengjn@buaa.edu.org](mailto:wengjn@buaa.edu.org)

Website: <http://www.rcssteap.org/>

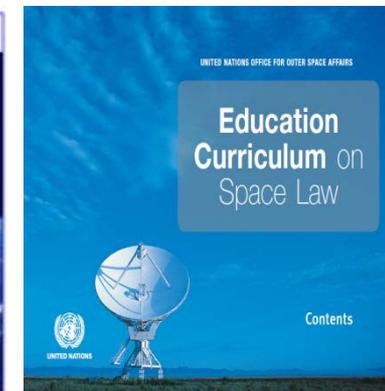
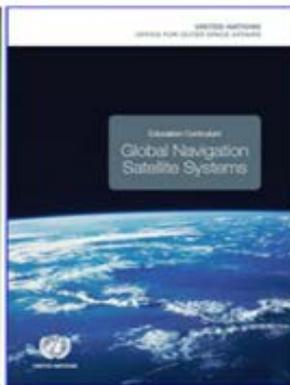
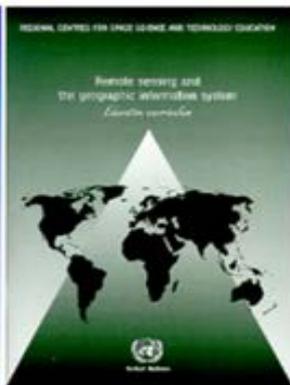
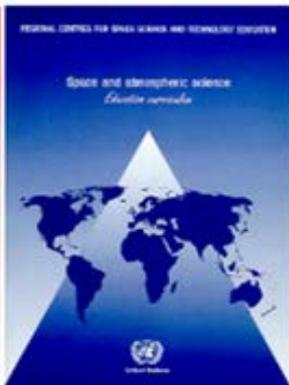
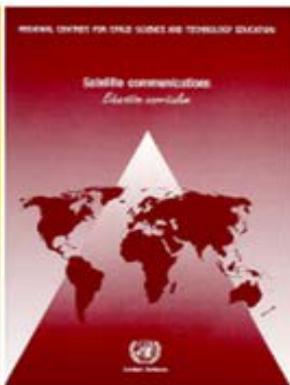
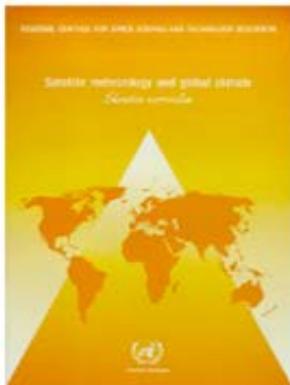
**CHINA**

## The Regional Centres at a Glance

Centres	Governing Board Members	UNOOSA Status
ARCSSTE-E 25	Botswana, Cameroon, Egypt, Ethiopia, Eritrea, Ghana, Kenya, Lesotho, Liberia, Mauritius, Malawi, Mozambique, Nigeria, Namibia, Somalia, Swaziland, Sudan, South Sudan, South Africa, Sierra Leone, Tanzania, Gambia, Uganda, Zambia and Zimbabwe	Observer
CRASTE-LF 13	Algeria, Cameroon, Cabo Verde, Central African Republic, Democratic Republic of Congo, Côte d'Ivoire, Gabon, Mauritania, Morocco, Niger, Senegal, Togo and Tunisia	Observer
CRECTEALC 2	Brazil, Mexico	Observer
RCSSETWA 11	Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, State of Palestine, Sudan, Sultanate of Oman, Syria and Yemen	Observer
CSSTEAP 16	DPRK, India, Indonesia, Iran (Islamic Republic of), Kazakhstan, Kyrgyzstan, Malaysia, Mongolia, Myanmar, Nauru, Nepal, Philippines, Republic of Korea, Sri Lanka, Thailand and Uzbekistan	Observer and Chair of Advisory Committee
RCSSTEAP 10	Algeria, Argentina, Bangladesh, Bolivia, Brazil, China, Indonesia, Pakistan, Peru and Venezuela	Observer

# Programmes of UN Regional Centres

Centres Programme	ARCSSTE-E	CRASTE-LF	CRECTEALC	CSSTEAP	RCSSTEWA	RCSSTEAP
RS&GIS	✓	✓	✓	✓	✓	✓
SATCOM	✓	✓	✓	✓	✓	✓
GNSS	✓	✓	✓	✓		✓
Micro Sat. Tech./ Small Sat. Mission				✓		✓
Space Law and Policy			✓	✓		✓
SAS & Space Sci.	✓		✓	✓	✓	
SATMET	✓	✓		✓	✓	



Curricula for all the PGD courses - developed by UN-OOSA

## UNISPACE+50 and the Emergence of ARC

- ❖ UNISPACE+50 - an opportunity using SDG 17 & Thematic Priority 7 (UNOOSA) to address the global development agendas
- ❖ The Centres -
  - Committed to academic excellence (PGD, Masters, PhD)
  - Established academic relationships with national and international space-related institutions.
  - Potential reliable partners for building space capacity in the regions.
- ❖ ARC - a mechanism to share experiences, plan and carry out activities jointly to support the outcomes of UNISPACE+50
- ❖ ARC will enhance existing Capacity Building partnerships and forge new ones,
- ❖ ARC - a vehicle to fast forward the realization of the UNOOSA mandates in the 21<sup>st</sup> Century.

# Alliance of Regional Centres (ARC) of space science and technology education - Formation of



**Meeting of Directors of Regional Centres, Jun, 2017, Vienna, Austria**

**The Alliance of Regional Centres (ARC) - established on the cooperation of six (6)  
UN Regional Centres, ARCSSTE-E, ARCSSTE-LF, CRECTEALC, CSSTEAP,  
RCSSTEWA, RCSSTEAP**

**- A sustainable resource-sharing platform meant to improve overall capability of all  
the Regional Centres**

# Alliance of Regional Centres (ARC) of space science and technology education - Membership

## Membership

**Regular:** Existing Six (6) Regional Centres for Space Science & Tech. Education

### **Associate:**

- National and International Educational entities
- Space related Institutions (Government & Non-Governmental)
- Private Sector entities (with cooperation agreement with RM)

**Ex-Officio:** UNOOSA

## Coordination Board:

- One (1) representative each from the Regular Members
- UNOOSA.

## **The Chair of the Coordination Board:**

- Regular Member - serve for 2 years - in rotation.

# Maximizing the ARC for Space2030

- ⊕ **Strengthen their Capability and Status of ARC as a major hub for Regional Capacity Building**
- ⊕ **Domestication & Ownership** - Involvement of Regional Bodies/Organisations e.g. AUC, ECOWAS, IGAD, AARSE, UNECA, etc.
- ⊕ **Regional Centres as a major node** in the proposed UNOOSA Capacity Building Network (CBN)
- ⊕ **Internship and Secondment/Exchange of staff**
- ⊕ **Common E-Learning Platform** for delivery of Modules

# Maximizing the ARC for Space2030

- ⊕ **Incubation of best practice** from industries and other major players through UNOOSA in the Centres
- ⊕ **Global Access to data, Software** for teaching and research purposes

## Conclusion

- ⊕ Indigenous Skill Acquisition, Utilisation and Retention in Space Science & Technology is key to the Socio-Economic Sustainable Development of any nation.
- ⊕ There is a clear evidence of the impact of the UNOOSA -assisted capacity building programme - which has already produced appreciable number of trained personnel.
- ⊕ Alliance of Regional Centres (ARC) will provide mechanism to share experiences, plan and carry out activities jointly to support the outcomes of UNISPACE+50
- ⊕ **Finally** - support and join ARC in the realisation of the 21<sup>st</sup> Century Capacity Building needed for the successful implementation of the Global Agenda.

*Thank  
You*

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**Alliance of Regional Centres**

Alliance of Regional Centres (ARC)  
for Space Science & Technology Education  
- *Affiliated to the UN*

