

Problems and Prospects of Space Education in Africa: ARCSSTE-E's Scorecard



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15th UN/IAF-Sponsored Workshop on Space Education and Capacity
Building for Sustainable Development
Kitakyushu-city, Japan. October 14-15, 2005.

Major problems (confronting African Countries)

- ◆ Low GDP/huge external debts/Foreign Aids.
- ◆ Lacking in infrastructures/funding for space research/development programmes.
- ◆ Scarcity of space experts & huge costs of training the personnel (brain drain - attractive/better opportunities in dev. countries).
- ◆ Unsustainable/unstable (space) science education policies; uncoordinated regional scientific activities (priorities) and cultural/colonial differences.
- ◆ Mitigating social problems: famine, high-level illiteracy, poverty, hunger, wars, etc.

Prospects (partnering for technical support)

- ◆ **NEPAD**
- ◆ **UN- OOSA, UNESCO, WMO, UNDP, FAO, etc.**
- ◆ **NASA, ESA, India, China, etc.**
- ◆ **USAID, SAREC, SIDA, etc.**

New Partnership for Africa Development (NEPAD)

“This is a programme of action for the redevelopment of the African continent”

The plan addresses key social, economic and political priorities in a coherent and balanced manner.

ARCSSTE-E

(<http://www.oauife.edu.ng/research/arcsstee>)

- ◆ Inaugurated on Nov. 24, 1998.
- ◆ MOU yet to be signed by all the member states - **no Governing Board**.
- ◆ Hosted by Obafemi Awolowo University, Ile-Ife, Nigeria.
- ◆ Solely funded by NASRDA (Nigeria).
- ◆ Travel Support provided by UNOOSA.

ARCSSTEE - Budget 2006

- ◆ Personnel/Overhead -
US\$ 150,000
- ◆ Capital projects -
US\$ 50,000 ???
- ◆ Scholarships (for African students) -
US\$ 40,000
- ◆ Space Edu./outreach programme
US\$ 25,000

Training/workshops - ARCSSTEE

- ◆ 2000 – RS/GIS(1)
- ◆ 2001 – RS/GIS(2), SatMet(1)
- ◆ 2002 – SatCom(1)
- ◆ 2003 – SatMet(2)
- ◆ 2004 – RS/GIS(3), SatCom(2), SatMet(3)
- ◆ 2005 – RS/GIS(4), SatCom(3), BSAS(1)
- ◆ 2006 – RS/GIS(5)

Students can continue to do a 1-year in-country resident project leading to the award of a masters degree

OPENING CEREMONY
OF THE 2005/2006
DIPLOMA COURSE IN SPACE SCIENCE AND
TECHNOLOGY APPLICATIONS
CONFERENCE ROOM, ARCSSTE-E BUILDING,
OLOWO UNIVERSITY CAMPUS, ILE-IFE, NIGERIA
DATE: WEDNESDAY, OCT. 5, 2005. TIME: 1 PM.







CAPACITY BUILDING: NASRDA/ARCSSTE-E venture

Advert out for the PGD programme
in SST Application (July 2005)

Offers: Tuition waiver
Boarding/living expenses
Travel support (OOSA)

Eligibility: English-speaking African countries

PGD Prog. (Jan. 2006 admissions)

APPLICATION SUMMARY/STATISTICS

| <u>Country</u> | | <u>No.</u> |
|----------------|---|----------------------|
| Botswana | - | 2 |
| Burundi | - | 1 |
| Cameroon | - | 6 |
| Egypt | - | 3 |
| Ethiopia | - | 7 |
| Gambia | - | 1 |
| Kenya | - | 15 |
| Liberia | - | 2 |
| Malawi | - | 7 |
| Namibia | - | 1 |
| Nigeria | - | 16 |
| Senegal | - | 1 |
| Sudan | - | 9 |
| Tanzania | - | 2 |
| Togo | - | 1 |
| Uganda | - | 5 |
| Zambia | - | 2 |
| Zimbabwe | - | 2 |
| Others | - | 4 |
| • Total | = | <u>87 applicants</u> |

SATCOM = 11 Applicants
SATMET = 2 Applicants
BSAS = 3 Applicants
RS/GIS = 71 Applicants
Total = 87 Applicants

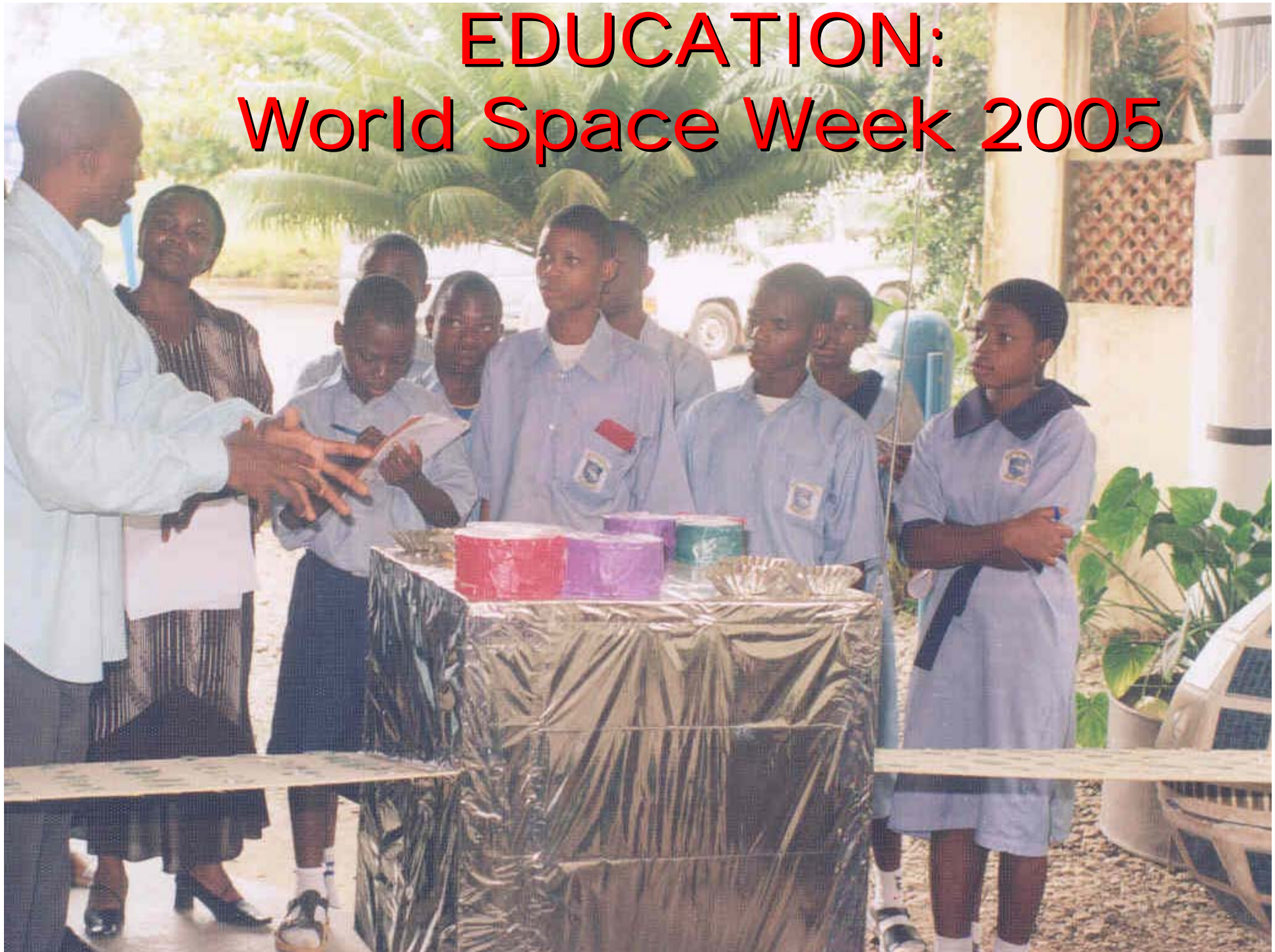
(Males = 81 Applicants)
(Females = 6 Applicants)
Total = 87 Applicants

(Dated: 30/09/2005)

Space Science Education/ Capacity Building

- ◆ motivation and the relevance;
- ◆ approach, curricula and techniques;
- ◆ role of space science teachers;
- ◆ training requirements;
- ◆ workshops/seminars, etc.;

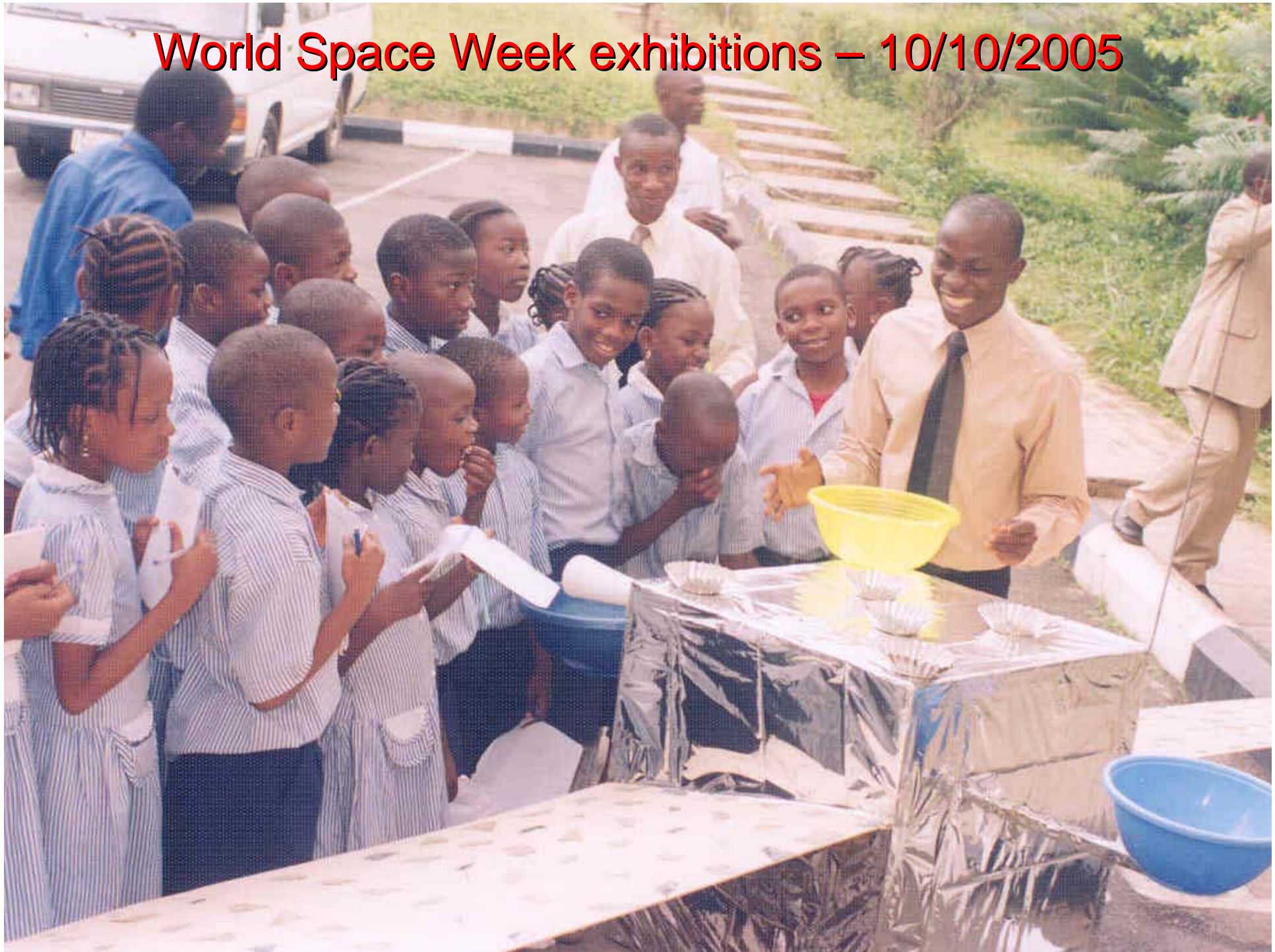
EDUCATION: World Space Week 2005



World Space Week exhibitions – 10/10/2005



World Space Week exhibitions – 10/10/2005



World Space Week – Participants from the local schools in Ile-Ife (10/10/2005).

| Name of School | Type | Level | Ages (Years) | Number | Sex ratio (M:F) |
|-----------------------|---------|-----------|--------------|--------|-----------------|
| Sunshine Nur. & Prim. | Private | Primary | 7 – 10 | 20(2) | 12:8 |
| OAU staff school | Public | Primary | 9 – 11 | 10(3) | 4:6 |
| Adventist Sec. School | Public | Secondary | 14 – 17 | 7(2) | 4:3 |
| Henry-Alex Duduyemi | Private | Secondary | 9 – 16 | 10(2) | 5:5 |
| OAU Int. School | Public | Secondary | 13 – 15 | 10(2) | 6:4 |
| Adepetu Comp. High | Private | Secondary | 10 – 15 | 10(2) | 5:5 |
| Moremi High School | Public | Secondary | 13 – 17 | 10(2) | 4:6 |
| Oduduwa College | Public | Secondary | 12 – 17 | 10(2) | 6:4 |

Statistics: Number of Schools invited = 8; Teachers accompanying = 17;

Total Number of pupils = 87 (Male:Female ratio = 46:41); Age range = 7 – 17 years.



In the future

- ◆ To promote widespread participation of Africans through the provision of scholarships.
- ◆ RS/GIS is the most attractive option.
- ◆ Promote regional collaboration and sharing of resources/facilities among African countries.
- ◆ NEPAD is a relevant instrument for promoting space education and capacity building for Africa.



Thank you.