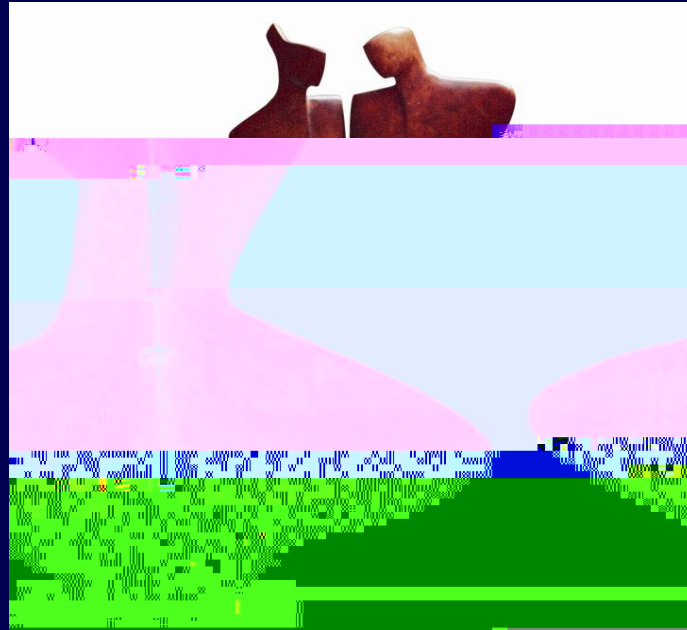# Gendering the Science and Technology Agenda

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Priority Gender Equality

Gender Equality is one of UNESCO's two global priorities:

"Priority Gender Equality: As called for by the 2005 World Summit Outcome document, priority will also be given to the pursuit of gender equality through action in all of UNESCO's fields of competence supported by a two pronged approach pursuing both gender-specific programming and gender mainstreaming in Member States and within the Organization."

(UNESCO's Medium Term Strategy for 2008-2013; 34 C/4

Leveraging Science & Technology (S&T) and Engineering for Development and Gender Equality:
UNESCO's perspective

The two biennial priorities for Natural Sciences for 2010 and 2011 are:

- Policies and capacity-building in science, technology and innovation for sustainable development and poverty eradication

- Sustainable management of freshwater, ocean and terrestrial resources, including renewable sources of energy, and disaster preparedness and mitigation

UNESCO's Programme and Budget for 2010 and 2011 (35 C/5)

Gendering the Science and Technology Agenda

o   In an increasingly competitive global economy, national economies require **scientific knowledge & a capable workforce** to exploit it

o   Scientific & technological literacy **empowers citizens** to make informed decisions relating to implications these advances have on national life

o   Until now, technological advances have principally been aimed at improving **men's** daily lives **rather than those of women**

o   **Gender-based discrimination** must be addressed as there is a broad range of development issues in which S&T plays a fundamental role and would benefit from increased women's participation, for example:
  o   HIV & AIDS
  o   Climate change

o   Gender issues have received increased international recognition in the field of development and S&T

Education & Research

o **« Leaky pipe »** - difficult to **retain** girls within S&T and for them to **make the transition** from higher education to professional life

o 29% of the world's researchers are women, but regional disparities occur, for example 46% in Latin America and the Caribbean compared to 15% in Asia

o There is **no gender parity** in primary or secondary education in **60%** of countries

o Horizontal gender segregation occurs within Sciences at PhD and research level

o In 91% of countries, men outnumber women on science and engineering courses

o Women outnumber men at Masters level, but not at doctoral level and beyond – **56% of PhD graduates and 71% of researchers are male** at the global level

Breaking Barriers

o Initial reasons for gender disparity in S&T can be factors leading to gender based discrimination in **poverty, basic literacy** and other fundamental areas touching on women's basic human rights

o Education and career choices are subject to **international, national, personal, family and institutional** forces

o **Mass media** perpetuates the social construct of S&T as a male-dominated sphere.

Examples of UNESCO's work:

• Establishment of five UNESCO Chairs on *Science, Technology and Gender* in Mexico, Morocco, Poland, Republic of Korea and Spain.

• Creation of the L'OREAL-UNESCO Awards and Fellowships honouring women scientists and young female researchers

Retaining and Promoting Women

Gendering the Ethics of S & T

o *Bioethics* entails the application of human rights principles to the life and health sciences, and to technology

o Examples of areas of research: medically assisted reproduction, prenatal and pre-implantation diagnostic techniques, human cloning

o The founding principles of both human rights and bioethics include personal autonomy, the primacy of the interests of the individual person and exclusion of any consideration of race, gender or biological, social, cultural or economic characteristics

→ *The progress and applications of science and technology must be assessed in the light of these principles*

Example of UNESCO's work:

Gender Equality and ICTs: Free and Open Source Software (FOSS)

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Recommendations

o **P**romote women's access to formal education, technical and vocational education and training (TVET) and non-formal education;

o **R**eview the teacher education policies;

o **T**ake into account socio-cultural factors that may disadvantage girls when formulating policies;

o **I**ntegrate S&T into non-formal education;

o **D**evelop effective, high-quality S&T education programmes;

o **T**ackle negative gender-stereotypes concerning the perceived suitability of women in S&T careers:

> o Via the national and international media;

> o Via educational policies, in particular gender-sensitive teacher training and educational material;

o **E**nlist positive female role models;

o **E**ncourage girls to go into careers in S&T, using career guidance;

o **D**evelop relevant, internationally comparable sex-disaggregated statistics.
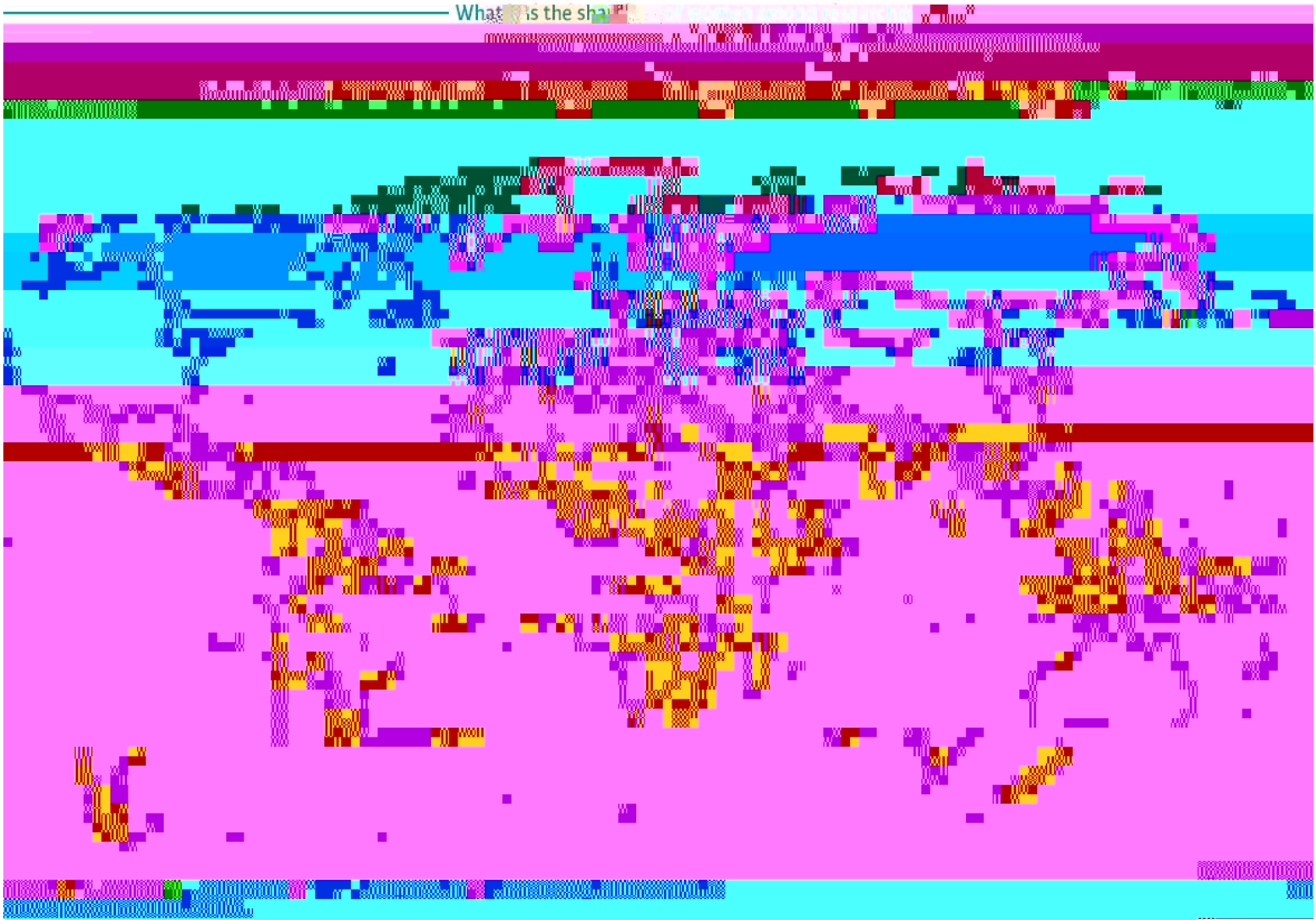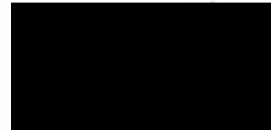
"The 2010 Global Education Digest: Comparing Education Statistics Across the World", UNESCO Institute of Statistics