The Importance of Science and Technology for Development Post-2015

EGM to support the advancement of the Post-2015 UN Development Agenda

February 29, 2012

Juan Antonio Casas-Zamora



S&T in Development post 2015: Key Questions

- Why are S&T crucial to the post 2015 UN Development Agenda?
- Which aspects of S&T matter most?
- How can these be included in a post 2015 UN Development Agenda?
- Should S&t have a specific goal and/or be a conditioning factor?



Science and technology

- the most powerful force for change in the world
- critical role in food security, health, energy, GCH and other sustainable development, and
- •87% of in productivity gains over time are due to technological change (R. Solow, 1957)





S&T in development and economic growth in emerging economies

- PRC: authorship of papers in IPRSJ from 828 (1990) to 100,000 (2010)
- •Latin America: 90% increase in S&D investment since 1997
- African Union and NEPAD: 2007Summit on S&D





Science: generation of knowledge based on evidence

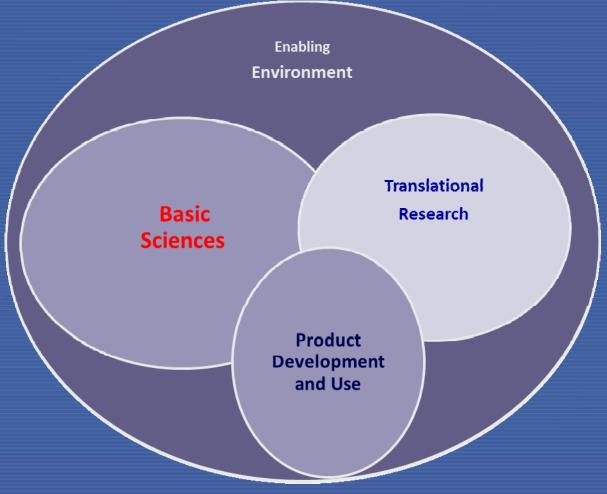
Technology: application of scientific knowledge through invention.

Innovation is the process by which inventions are produced.





Which aspects of S&T matter most? Global Science Innovation System





National SIS can:

- Articulate research priorities
- Adapt external technologies and develop new ones for local problems
- Add value to natural resources



National SIS can:

- Improve production and support new enterprises
- Effective regulation to control use of new technologies
- Participate in international science networks



National SIS can:

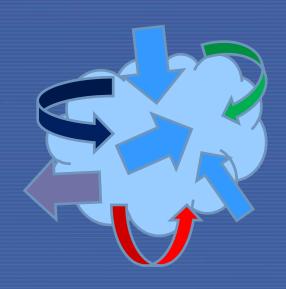
- Engage fully in global debate on climate change, IPR, biotechnology, energy, nanotechnology, etc.
- Benefit from high value added technology transfer in FDI





How can these be included in a post 2015 UN Development Agenda?

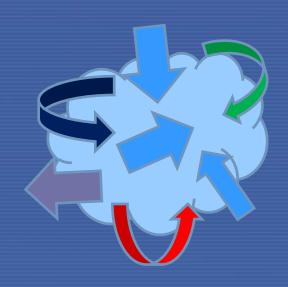
- Science and technology: informs policy action at global and national level
- Fully incorporate S&T in the development agenda
- Need of a new global S&T development framework





How can these be included in a post 2015 UN Development Agenda?

- Effective global SIS with engagement of scientists from ALL countries
- Capacity building of S&T in developing countries in key priority areas





S&T: Goal or Condition?

States of S&T development

1.Lagging

Lacking almost entirely

2. Developing

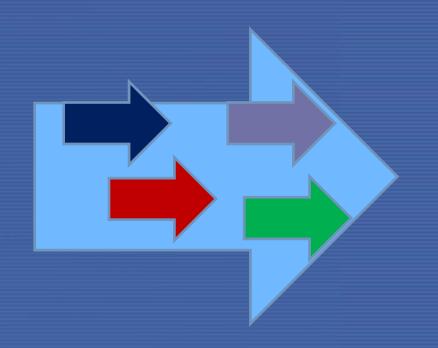
Pockets amongst general scarcity

3. Proficient

World class capacity in some areas

4.Advanced

Capacity in all major areas (80% of global R&D)





S&T: Goal or Condition?

- New forms of horizontal engagement and alliances are needed
- Cooperation of UN in S&T, development partners and the private sector
 - Examples: AATF, Embrapa,
 ARCAL, CyTED, NERICA
- S&T in UNDAFs and integrated regional UN development agendas





Thank you

Juan Antonio Casas-Zamora

Director, Division of Programme Support and Coordination,

Technical Cooperation Department

J.A.Casas-Zamora@iaea.org

