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Ministerial round table on "Science, technology and innovation for the post-2015 development agenda"

12 May 2014

Statement by Mr. E. William Colglazier, Science and Technology Adviser to the Secretary of State, United States Department of State, Washington, D.C.

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U.S. Opening Statement about Science and Technology

UN Commission on Science & Technology for Development

May 12, 2014 15:00-18:00

Ministerial Round Table on "Science, Technology and Innovation for the Post-2015 Development Agenda"

Objectives:

1) Reinforce the power of science, technology, **engineering** and innovation (STE& I) in fostering inclusive economic growth, environmental protection and ending extreme poverty.

2) Shape the dialogue to not only highlight that STE& I capacity development is not only important, but also that STE&I is the enabling power to achieve sustainable development goals better, faster, cheaper.

3) Emphasize advanced thinking about global development, in terms of new financial models, new partnerships, and new processes to solicit, test and scale from lab to field.

Introductory salutations

I want to thank the UNCSTD Secretariat for the excellent preparation for the meeting, and to the Chair for his work in guiding the Commission.

Overarching comment:

Science, technology, engineering and innovation should be integrated in national policy development and implementation, and support other public policy goals, such as economic development, public infrastructure, education, sustainable agriculture and public health. The United States sees science, technology, engineering and innovation (STE& I) being integrated into the broader development agenda, and harnessed more effectively to address the three pillars of sustainable development: economic development, social development and environmental protection. We also see that STE& I has a key role in the effective achievement of future Sustainable Development Goals, including in monitoring and evaluating progress.

The United States will now touch on three main topics

1) *The role of science, technology, engineering and innovation (STE& I) in economic growth, environmental protection and extreme poverty alleviation*

- STE& I is essential for accelerating economic growth, alleviating poverty and doing so in a way that promotes sustainability. Breakthroughs in science and technology can spur quantum leaps in global development. They can encourage novel and scalable ways to reduce poverty, and can galvanize partnerships across the post-2015 development agenda.

- In order for countries to capitalize on STE&I for sustainable development, we need investments in:

    - Research and development. Healthy economies have been able to achieve investment levels in research and development of 2% or more of Gross Domestic Product.

    - STEM education for both male and female students at all levels, particularly tertiary education, and vocational training.

        - The youth bulge in many developing countries provides a tremendous force for economic growth and development, if young people can receive high quality education that is relevant to the global technology-driven economy.
        - We recognize that achieving literacy and numeracy during primary and secondary education is prerequisite preparation for students to be ready for tertiary and vocational education in STE& I fields.
        - Full participation of women, girls and under-represented groups across all levels of education is essential for economic growth and sustainable development.

- Policies and actions that foster the entire innovation ecosystem, such as:

  - training in administration, business, law fields;
  - Training in social sciences as well as in physical and biological sciences and engineering.
  - development of intellectual property protection and science-based regulatory systems;
  - new models of private-public partnerships;
  - promoting efficient markets, venture and risk capital investing, and foreign direct investment and trade;
  - an acceptance of the risk associated with innovation and of failure as a part of the process; and,
  - policies that encourage entrepreneurship and new startup companies.

2) *New models for integrating STE & I into sustainable development processes*

- The United States is changing the way we think about how science, technology, engineering and innovation to help address development challenges.

- For example, the U.S. Agency for International Development (USAID) recently launched a new U.S. Global Development Lab (The Lab) to lead our efforts in applying science, technology, innovation, and partnerships to solve global development challenges and accelerate our development impact.

- The Lab is fundamentally changing how we approach development: prioritizing science, technology, and partnerships across all international aid efforts because we believe that with the right science and technology breakthroughs, we can help bring an end to global poverty and accelerate progress on other sustainable development goals.

- We recognize that innovation can come from anywhere. We are working hard to harness under-utilized communities to generate local solutions to local problems.

    - For example, more than 6,000 innovators, entrepreneurs, small and medium business owners, researchers, and students interested in tackling development challenges have applied for funding from USAID through various pioneering open source development mechanisms, such as open competitions for new innovations. Applications are increasingly coming from innovators in the developing world and from non-traditional partners. More than 65 percent of award winners in 2010-2013 have never received economic support from USAID before.

- We are capitalizing on new kinds of partnerships, bringing in the private sector to provide funding, resources, and help scale up innovative science, technology and engineering solutions.

- For example, The U.S. Global Development Lab brings together a diverse network of more than 30 Cornerstone Partners who have committed to share knowledge, solve problems, provide investments, and scale solutions to hundreds of millions of people. This network is comprised of businesses, NGOs, foundations, universities and governments who bring cutting-edge technologies, deep expertise, advanced research and development capabilities, far-reaching networks of customers, suppliers and community organizations, and more than $30 billion in independent investments in emerging markets through science, technology, innovation and partnerships. We are looking to engage their "engines" - their core capabilities and resources to help identify common challenges and bring proven solutions to scale. Several of our partners plan to do this by sharing distribution networks and enabling technology to dramatically increase the scale and reach of our work through distribution and/or commercialization of new ventures.

- To foster more inclusive models of STE & I education, the State Department has partnered with leading companies on the initiative "TechWomen," to empower, connect, and support the next generation of women leaders in science, technology, engineering, and mathematics from Africa and the Middle East by providing them the access and opportunity needed to advance their careers, pursue their dreams, and inspire women and girls in their communities. Through mentorship and exchange, TechWomen strengthens participants' professional capacity, increases mutual

understanding between key networks of professionals, and expands girls' interest in STEM careers by exposing them to female role models.

- The Higher Engineering Education Alliance Program, or HEEAP, of Intel Corporation, Arizona State University, Vietnam's Science and Education Ministries, and USAID are partnering to transform and modernize top engineering and technical vocational universities in Vietnam.

- The U.S. Office of Naval Research and the Office of Naval Research Global have supported a design of an efficient, stable and safe community power distribution system in Chiang Mai, Thailand, via a direct current microgrid. The direct current is used in the Smart Community, which is comprised of residential housing, offices, a restaurant, a convenience store, a coffee shop and a vegetable farm. This is the first system in the world that uses direct current to power the entire community. In addition, the Smart Community Direct Current microgrid is integrated with other renewable energy technologies such as an alternating current microgrid and a biomass gasifier. 100 percent of power usage in the Smart Community is from renewable energy.

3) STE& I contributions to achieving sustainable development

- STE& I helps identify and craft better, cheaper, faster ways to achieve sustainable development.

- Technology innovations are playing prominently in improving planning and service provision in urban areas; developing, distributing, and advancing technologies for providing health care, education, energy, food, water, and reducing pollution.

    - For example, LAUNCH, a partnership with the Department of State, NASA, USAID, and Nike Corporation, has provided financial resources and project guidance to Gram Power, a company developed by students at the University of California, Berkeley. Gram Power uses solar-powered micro-grids to provide access to reliable, scalable power in rural India. They deliver power to households outfitted with smart power meters. Villagers prepay for their electricity much like they do for mobile phone service and for 20 cents a day they can power all their home appliances. Gram Power is on pace to reach over 20,000 homes and, with local government support, is expanding across the country.

- We know that STE& I advances are helping people communicate and mobilize to affect political and social change and increase transparency in governance processes.

- Innovative applications of information communication technologies, including broadband internet, are important for accelerating sustainable development solutions, and represent a wealth of potential for:

    - New sources of employment and business startups
    - Streamlining data collection
    - Harnessing the wisdom of crowds to solicit ideas and solve problems
    - Disseminate information rapidly and widely
    - Bypass traditional communication or payment systems

Finish opening statement with comments on the role of the UNCSTD

The United States sees the UNCSTD as a valuable venue for a number of activities related to science, technology, engineering and innovation for development.

1) The UNCSTD will continue to serve as a forum for sharing STE& I ideas and best practices.

2) The UNCSTD will continue to scan the horizon for new ideas and mechanisms of harnessing STE& I for development.

3) The UNCSTD can provide advice and ideas to SDG negotiations and as countries implement the future SDGs.

4) Rapid Urbanization will continue to be a game changer in the post-2015 context; perhaps the UNCSTD can continue providing leadership on how STE& I can play a role.

5) We know that climate change will impact development, and the UNCSTD can consider how STE&I can help raise awareness to find solutions to these challenges.