

## **“Reducing Inequality Through Science, Technology and Innovation”**

**Side event at the 4th Annual Multi-stakeholder forum on science, technology and innovation for the Sustainable Development Goals (STI Forum 2019)**

**Intervention  
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One good yardstick to measure the technology level of any country is to look at that country's global trade activity. This yardstick however should discount energy resources exporting nations. Measuring by this yardstick, the share of LDCs in total world trade remains marginal, accounting for just about 1%. This suggests that the linkage between technology and trade across LDCs is weak both in terms of the role of technology in enhancing trade competitiveness and the role of trade in ensuring knowledge and technology transfer.

There are many reasons for these weaknesses. To start, the domestic market is small in LDCs. LDC enterprises are, in general, small and medium-sized with limited opportunities to reap the benefits of economies of scale and invest in R&D. Additionally, most LDCs have a weak investment climate (lack human capital, fragile institutions, lack of infrastructure, and remoteness), which limits access to external capital and thereby constraints industrial development.

Many LDCs do not yet possess the required skills, energy infrastructure, broadband or transport networks to take advantage of the new production techniques. Since technology transfers are imperfect, LDCs with low innovation rates usually specialize in low-skill intensive production, which traps them in a low-income trade cycle. In addition, LDC government capability is limited due to financial constraints and inefficiency in the form of asymmetric information and the diverse interests of public agents. For all these factors, LDCs incur higher production and transportation costs to stay in business and hence are bypassed by the Global Value Chains.

The world faces a major challenge in facilitating flow of technologies and knowledge. Entities that own the technology, make the access to technology difficult. This is primarily due to the significant commercial value that accrues to firms controlling these technologies or the constraints associated IPR. Moreover, the IPR protections within the World Trade Organization (WTO) framework are not aligned adequately with the needs

of the LDCs, as they often tilt towards protecting well-established rights, traditionally emanating from developed countries.

Traditional bilateral and regional international trade agreements (RTAs) and international investment agreements (IIAs) have also had restrictive effects on domestic policy space and innovation which extend beyond the scope of WTO. Technology standards set by the developed world put up trade barriers which are difficult for LDCs to meet.

Despite these teething problems on the capacity side, the consumers in LDCs have benefited from technology leapfrogging. The telecom sector is one of the areas where we see the deep impact of technology adaptation. Mobile phones have given the people in LDCs access to long-distance communications without the need for costly investments in landlines and other infrastructure. Likewise, mobile banking has enabled access to financial services in remote areas without bank branches.

Technology can enhance labour productivity but cannot fill empty stomachs. The focus of Governments and international agencies should be to promote technologies in LDCs that involve net job creation accompanied with health, safety or environmental benefits. A concerted effort is needed to build technological capabilities and to support all forms of innovation – technological and non-technological, entrepreneurial, social, institutional – in LDCs.

Many emerging technologies — notably those that could help to reverse climate change, enhance environmental sustainability or combat pandemics — could be provided as global public goods, by making the knowledge that underpins them more freely accessible at the global level. Provision of such technologies as global public goods would maximize the benefits they produce, supporting our common purpose of ensuring a sustainable planet for present and future generations. While the motivation underlying the provision of certain technologies as global public goods is clear, implementation can be complicated.

The UN Technology Bank, which aims at helping LDCs obtain more complete information on new technologies and how they can be applied within the context of country-specific circumstances is a good beginning, but we need more.

Is it possible for us to think of a multi-stakeholder participatory process for the purpose of determining what technologies should be considered global public goods and how they should be produced and distributed?

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