INTERSESSIONAL PANEL OF THE UNITED NATIONS COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)

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Contribution of Germany

to the CSTD 2018-19 priority theme on 'The impact of rapid technological change on sustainable development'

Stellungnahme: *22. Sitzung des CSTD-Sekretariats Priority Themes*

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Kommentierung

Theme 1: The impact of rapid technological change on sustainable development

1. From the perspective of your country/region what are the key emerging technologies and their current and potential applications that could give an opportunity to solve great societal challenges and achieve the SDGs in your country or region?

Access to sustainable energy in line with people's needs is the foundation for any form of economic and social development. This is highlighted by the close interlinking of SDG 7 and other SDGs. Therefore, the goal of the German Federal Ministry for Economic Cooperation and Development (BMZ) in the energy sector is to reduce energy poverty and promote economic and social development while decarbonising the sector and supporting partner countries in a fundamental transformation.

Worldwide there are more than 1 bn. people lacking access to electricity. Affected are, in particular, people living in rural areas. Off-grid solutions based on decentralized, renewable energy are a key emerging technology to provide access to electricity in rural areas. Especially hybrid systems utilizing Solar-PV and battery storage are currently applied to provide energy access. Potentially, these off-grid solutions could become the technical foundation of interconnected mini-grids as a future cellular grid and a decentralized energy system.

2. Can you provide examples of policies/projects/initiatives that promote rapid technological change in your country/region and mitigate their potential negative effects? Are there any of these policies/projects/initiatives directed to women, youth or other groups of the society? How have the policies targeted inequalities? What are the challenges confronted in implementing these projects?

Out of the around 1.1 bn. people without access to electricity more than half live in sub-Sahara Africa. Therefore, the BMZ launched the initiative Green Peoples Energy for Africa dedicated to support BMZ's partner countries in the development of a decentralized, renewables-based energy system. Goals of the initiative are amongst others to develop decentralized energy structures in rural regions with the assistance of municipalities, cooperatives and private-sector investments; and build local capacity of African municipalities to provide affordable, reliable and sustainable energy. Concrete actions will be amongst others to establish energy partnerships between African and German Communities, and to support African countries in creating suitable framework for people's energy cooperatives. Thereby, the rapid deployment of off-grid solutions for energy access is promoted.
Whilst the initiative addresses African communities as a whole, the Energy Training Initiative especially addresses young adults and their entrepreneurial spirit. Furthermore, the initiative is directed to the rural population as a disadvantaged group in terms of energy access and economic development and thereby contributes to further equality.
For more information on the initiative see:
https://www.bmz.de/en/publications/type_of_publication/strategies/Strategiepapier395_06_2017.pdf

The gender digital divide is growing despite consensus among governments and others that addressing it is a top priority. Sustainable Development Goal (SDG) 5 of Agenda 2030 set the goal of achieving gender equality and empowering all women and girls, including by ending all forms of discrimination against all women and girls everywhere (5.1), eliminating all forms of violence against all women and girls (5.2), ensuring women's full and effective participation and equal opportunities for leadership (5.5), and enhancing the use of enabling

technology, in particular information and communications technology, to promote the empowerment of women (5.b).

In December 2015, an Action Plan to Close the Digital Gender Gap was launched at a side event on "Women's Empowerment in the Digital Age" during the High-Level Meeting of the World Summit of the Information Society in New York (WSIS+10). The Action Plan focused on the following key areas:

1. Develop gender responsive strategies and policies
2. Ensure access to ICTs by women and girls and mitigating or responding to the threats online that hinder women's access to and use of technology
3. Build digital capacities of girls and women and support development of content, applications and services that meet women's needs
4. Promoting women in the technology sector, including into positions of decision-making
5. Establish multi-stakeholder partnerships to advance women's empowerment within the Information Society and strengthen international cooperation

https://www.eskills4girls.org/

3. What are the actions that the international community, including the CSTD, can take to contribute to maximize the benefits and mitigate the risk associated to rapid technological change? Can you give any success stories in this regard from your country or region?

Actions that should be taken by the international community to facilitate an energy sector development based on renewable, decentralized energies are:

- To exploit the potential and promote a rapid deployment of decentralized, renewable energy, especially green people's energy it is crucial to reform the regulatory, legal and financial framework.
- Countries with large energy access gaps need to introduce mini-grids and off-grid systems based on renewables to their national electrification plans.
- Moreover, new finance opportunities have to be opened up for decentralized, renewable energy based on locally-rooted, community-based finance approaches and private sector participation.
- The development of energy systems should follow a value-based approach instead of a strict cost optimization to incorporate the co-benefits of energy sector development such as positive effects on other SDGs.
- The role of people – as producers and consumers of energy – has to be strengthened by education, training and capacity building as an integral part of any energy access project.
- Tools and instruments for a multi-stakeholder approach to the planning and monitoring of SDG 7 implementation have to be developed.

For more information see Policy Brief 24 in support of the first SDG 7 review at the UN HLPF 2018:
https://sustainabledevelopment.un.org/content/documents/18041SDG7_Policy_Brief.pdf

Energising Development (EnDev) is a success stories in the field of providing sustainable energy access. The technical cooperation measure is multi-donor partnership (Germany/BMZ and other European countries) with the goal to provide sustainable access to modern energy to at least 20 mio. people until 2019. EnDev is active in 25 countries in Africa, Asia and Latin America and provided 19.2 mio. people with access to energy since 2005, as well as about 41,000 small and medium enterprises and about 22,000 social institutions. With its structural approach, EnDev contributes in the mid- and long run to a wider energy sector transformation.

More information on EnDev may be found on https://endev.info/content/Main_Page

New forms of work arise through the digital economy, like doing work that is outsourced via online platforms or apps in the “gig economy”. Lacking the ability to collectively bargain, platform workers have little ability to negotiate wages and working conditions with their employers. We acknowledge the importance of fair and sustainable jobs in the digital economy and the need for a legal framework for digital labor rights. That is why the BMZ is supporting the Fairwork Foundation of the Oxford Internet Institute (OII). They establish a certification system for fair work on online platforms.

http://fair.work/about/

4. Could you suggest some contact persons of the nodal agency responsible for policies related to rapid technological change and its impact on sustainable development as well as any experts (from academia, private sector, civil society or government) dealing with projects in this area? We might contact them directly for further inputs or invite some of them as speakers for the CSTD inter-sessional panel and annual session.

Contact person for the initiative Green People’s Energy: K. Hummel, BMZ
Contact person for Policy Brief 24: Dr. A. Kauer, BMZ
Contact person from academia (Fairwork Foundation): Mark Graham, Oxford Internet Institute
Contact Person from academia: Richard Heeks (Manschester University)

5. Do you have any documentation, references, or reports on the specific examples on the priority theme in your country or region?

See links above.