COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)

Twenty-second session
Geneva, 13 to 17 May 2019

Submissions from entities in the United Nations system and elsewhere on their efforts in 2018 to implement the outcome of the WSIS

Submission by

United Nations Development Programme

This submission was prepared as an input to the report of the UN Secretary-General on "Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels" (to the 22nd session of the CSTD), in response to the request by the Economic and Social Council, in its resolution 2006/46, to the UN Secretary-General to inform the Commission on Science and Technology for Development on the implementation of the outcomes of the WSIS as part of his annual reporting to the Commission.

UNDP INPUTS TO THE UNCTAD REPORT
IMPLEMENTATION OF THE WSIS OUTCOMES
[Action Lines on Capacity Building, Enabling Environment,
and International/Regional Cooperation]
14 December 2018

Background [Excerpt from UNCTAD Message]

The Economic and Social Council, in its resolution E/2006/461, requests the United Nations Secretary-General to report annually to the Commission on Science and Technology for Development (CSTD) on the implementation of outcomes of the World Summit on the Information Society (WSIS). This role was reaffirmed by ECOSOC in its resolution 2017/21.

Furthermore, at its 70th session, the General Assembly undertook a comprehensive review of the ten-year implementation of WSIS outcomes. The outcome document of the Review, resolution 70/125, calls for the continuation of annual reports on the implementation of WSIS outcomes, through the CSTD, to the Economic and Social Council, taking into account the follow-up and review of the 2030 Agenda for Sustainable Development. This resolution also encourages the members of the United Nations Group on the Information Society to contribute to the reports.

Part One: Executive summary of activities undertaken, progress made, and obstacles encountered

Much progress had been made across UNDP in terms of focused efforts in the use of ICTs or new technologies in development programmes across regions. UNDP established in 2014 the Innovation Facility, integrated ICTs in more programmes (including in climate change and disaster risk reduction efforts, for instance, as listed below), and established more partnerships (example below) that support the digital transformation of developing countries for sustainable development.

Main obstacles in the area of capacities continue to be a serious concern. As noted by the Broadband Commission, digital inequality is significant, with 52% of the world population still without Internet access. Gap between developed and developing countries is stark, with majority unconnected living in developing countries of the Asia Pacific and African regions, and most in rural or low-income areas with weak infrastructure. LDCs are in particular disadvantage, with only 172 million of about 1 billion using the Internet by end 2017 (usage rate of 17.5%) and a little over 20 for every 100 with mobile broadband subscription (four times less that in developed countries). Most behind are Small Island Developing States (SIDS) and countries in fragile settings (e.g., Haiti, Iraq, Lao PDR, Lebanon, Libya, Myanmar, Sierra Leone, Somalia, South Sudan, Timor Leste, Turkmenistan, Ukraine, Venezuela, Yemen, etc.). These pose distinct challenges to 2030 Agenda commitment to leave no one behind, and these challenges go beyond lack of infrastructure alone.

Part Two: Trends and experiences

UNDP efforts in countries with varying levels of digital capacities underline the need for building the local digital ecosystem to achieve the goals of sustainable development. Experience underlines that introducing a procured ICT or new technology in a project, without the aim of helping transfer knowledge, does not help build the foundations for the digital ecosystem that can help pave the way for sustainable digital development. More needs to be done in building local and national digital ecosystems, which should be part of national and local digital strategies.

UNDP also notes the impact of the interplay of rapid urbanization and digital revolution in the achievement of the 2030 Agenda. Many cities around the world are increasing adopting "smart" technologies and approaches in addressing urban needs and challenges. There is need for more coherent support to these efforts from across the UN development system, to ensure that efforts are anchored in the SDGs. The WSIS community, specifically, could more systematically assist these efforts, starting perhaps with agencies in UNGIS working more closely to leverage each one's mandates and capacities and "deliver as one."

Part Three: Description of activities, policies, programmes, etc.

Innovation in UNDP

- Innovation is a key driver of the UNDP Strategic Plan 2018-2021. With Denmark's support, UNDP has invested since 2014 in a dedicated function, the Innovation Facility (IF), which supports innovation across the organization that has a focus on experimentation and new technologies. The Facility provides 'risk-capital' to UNDP offices; with funds awarded to initiatives that show potential for forging new partnerships, scaling, and catalysing new funding for human development.

- Over 60% of the IF portfolio shows additional co-investment by partners from governments and the private sector – a first proxy for scale. Initiatives that receive funding from the IF also bring 50% more partnerships with private sector actors than the average UNDP project; 40% more partnerships with academia and IFIs and are 30% more likely to design with users. For every dollar invested, additional 2.1 dollars were mobilized on the country-level.

- Independent evaluations show that country-level innovation experiments since 2014 resulted also in a portfolio of emerging service lines developed that UNDP now offers to clients: these focus on alternative finance, data innovation, emerging tech and behavioural design.

- In more than 10 countries, UNDP supported government partners with the setup of dedicated public policy labs, often within Prime Minister Offices or line Ministries. These Labs

helped redesign public services with citizens, execute experimental policy design processes and improve public planning through foresight processes.

- In India, UNDP supported real time tracking of vaccine stocks in real-time using Internet-of-Things technology, ensuring availability also in remote areas. With partners, UNDP scaled an SMS-based reporting system to combat corruption in Papua New Guinea; which won the 2017 "Integrity Excellence Award" by Transparency International; UNDP scaled a mobile app for e-waste recycling in China; and a mobile payment mechanism for relief workers during and after the Ebola crisis.

- Through an academic collaboration with the University of Queensland, and a consortium of partners – UNDP developed a Spatial Data Sandbox – an open data platform that provides decision-makers in countries access crucial information for spatial planning and natural resource management. It kicked off with pilots in 6 countries – Indonesia, Viet Nam, Brazil, Costa Rica, Ecuador, Peru and the Democratic Republic of Congo. It is now part of a global offering to 110 countries through the newly launched UN Biodiversity Lab.

- The UNDP Sudan office used satellite data to estimate poverty levels via changing night-time energy consumption. In Tunisia, we tracked public perception of corruption in real-time based on analysis of online media and social media interactions. The UNDP Armenia office saw an opportunity to help the tourism industry based on up-to-date tourist preferences by analysing the number of roaming foreign SIM cards in use. Based on country-based big data initiatives, UNDP and UN Global Pulse published the 'Guide to Data Innovation' which provides targeted step-by-step support to development practitioners across the UN System.

- UNDP is in the early steps of deploying A.I. (neural language aggregator and machine learning) to help manage and compute the copious amounts of qualitative data in faster and more cost-effective ways. For example, UNDP is working with IBM to automate the UNDP's Rapid Integrated Assessment (RIA) – a tool that helps governments assess the alignment of national development plans and sectoral strategies with the 169 targets of the Sustainable Development Goals to determine a country's readiness for implementation of the global development agenda.

ICTs for building disaster and climate change resilience, with a focus on cities

- The world is urbanizing at a fast pace, and the UN projects that by 2050 close to 70 percent of humanity will be urban, and as much as 90% of the urban growth between now and 2050 is expected to take place in Asia in Africa.[1] These trends have immense implications for the future of humanity: How we manage them will define the world we will leave the next generation and whether we achieve the world we envisioned in the 2030 Agenda. Cities are big contributors to GHG emissions and are also disproportionately affected by climate-induced disaster risks.

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[1] https://esa.un.org/unpd/wup/Publications/Files/WUP2018-KeyFacts.pdf

- In order to ensure resilient urban development, UNDP's policy and programmatic interventions inter-alia **focus on harnessing the potential offered by ICT tools to build urban resilience**. UNDP implemented a **regional *ICT for DRR* project** in the Europe and CIS Region supporting 3 cities in Armenia, Moldova and FYR Macedonia *to harness the potential of ICT tools for effectively managing and reducing the risks in urban context and to support risk-informed development processes.* The project seeks to build greater disaster and climate resilience in fYR Macedonia, Armenia and Moldova by increasing institutional capacity, mobilizing knowledge, transferring appropriate best-practice innovation technologies and strengthening collaboration between the cities of Skopje, Yerevan and Ungheni. In this initiative, partnerships were established with municipalities and central authorities of Skopje (Macedonia), Yerevan (Armenia) and Uncheni (Moldova). Each country has identified specific national component (Smart City Concept, Urban preparedness, Environmental hotspots, etc.) and there is also a knowledge management and information exchange regional component.

- ICT4DRR project is seen as a seed investment in mainstreaming the ICT innovation in the disaster and climate risk reduction activities in the region. It shall be the foundation for replication and scaling up activities for smart and resilient cities. It also presents an opportunity for co-financing activities from the beneficiary cities. E.g. City of Skopje is cost-sharing for the climate change strategy and adaptation, as well as green cadaster.

- Big data analysis is another potential proposed to be tapped under the Project. For eg. in MKD, the datasets from the mobile operators are proposed to be used to analyze the relation between the increased air pollution (hazard No. I) and the mobility patterns of the citizens. Also, mobility patterns are useful for improved emergency management planning.

- The project strengthens the capacities of the three cities to develop and implement integrated disaster and climate risk reduction plans and programmes. This is done by using the Global Local Government Self-Assessment Tool (LGSAT), as well as innovative foresight methods.

- The Smart City approach is being introduced to address the challenges of rapid urbanization and climate change. Smart City aims to optimize scarce city resources, increase resilience and generate a unified and coherent customer experience for citizens.

- Moreover, ICT solutions for improving the availability of information and increasing public awareness about disaster and climate risks in urban areas are being leveraged. At the international level, the project support knowledge sharing on best practices and lessons learnt, as well as support the academic education on ICT innovations for DRR.

- The Social Innovation Challenge for urban resilience is being used to build awareness among youth with the support of the social innovation labs in the countries.

- The Project **partners** with academia, private sector, civil society, governments, cities and other stakeholders as well as with academic and technical institutions in the region like the

Central European University, Technology and Science Dynamics Ltd. For support on technical specifications and development of smartphone app; identification of green environmental spots during heat waves etc.

- **Moldova** is working in close cooperation with the Civil Protection and Emergency Situations Service and the Ungheni town. Accordingly, they prepare the Ungheni Resilience Strategy involving the local working group comprised by local stakeholders. In addition, in cooperation with MiLab, comprehensive web portal contacting the DRR information, incorporating the feedback mechanism and providing the possibility to connect mobile items is developing.

- **Armenia** a concept for the Smart City solution for Yerevan is being developed, with scaling up of the existing mobile DRR application aimed for improved information of the citizens.

- UNDP in FYR **Macedonia** together with the City of Skopje will achieve urban resilience of the city through disaster and climate risk reduction. In that sense the GHG Inventory for 2008 and 2012 was developed and preparation of the "Resilient Skopje" Climate Change Strategy was initiated through use of foresight exchange gaming on local level. Urban heat island maps are prepared and together with the Green Cadaster of the city will improve the overall resilience of the city. Accordingly, flood model of the city will be designed for improved flood prevention and GIS inventory of the buildings will strengthen the vulnerability of citizens. Training drills in the high schools are conducted with evacuation guided by QR codes.

International cooperation for digital cooperation

- The technologies powering the 4IR are expected to transform all sectors and the future itself, with benefits expected to be immense ("massive productivity boost" among others). The poor and developing countries are expected to gain particularly on the fronts highlighted by a World Bank report as "the most important returns to digital investments" (economic growth, increased jobs, enhanced services, etc).

- Countries understand the serious need to transform their digital landscape to propel progress. Lifting the digital prospects particularly of developing countries however will require enormous investments. There is need therefore for strategies and tools that target the adoption of technologies and development of capacities that present the most impact, identifying "the technologies that matter."

- It is in this context that the Government of Estonia and UNDP agreed to collaborate on efforts that support digital transformation as a development pathway. On the side of the UNGA in September 2018, the UNDP Administrator and the President of Estonia launched the Estonia-UNDP Cooperation on Digital Transformation as Sustainable Development Pathway. The cooperation will leverage the digital evolution and expertise as well as development experience and achievements of Estonia through the years, alongside UNDP's

expertise in, longstanding support for, and sustained investments in sustainable development across regions. It will also provide the platform for engaging other partners from across sectors to build the base for a range of expertise and resources needed to effectively assist efforts on the ground, developing work streams that would best fit specific demands and match synergies