

2018 ECOSOC Integration Segment: “Innovative communities: leveraging technology and innovation to build sustainable and resilient societies”

1 – 3 May 2018, UN Headquarters, New York

UNDP contribution to the 2018 Integration Segment

- a) What is your assessment regarding the **main risks** faced by your membership, currently and in the next 10 years?

Notable progress has been made around the world, as evidenced by the success in meeting the Millennium Development Goals (MDGs).¹ Moreover, the adoption of the Sustainable Development Goals in 2015 was a timely reaction to increasingly distressful trends: for example, the **highest number of deaths from conflict in 25 years** was recorded in 2015, as well as the **highest number of displaced people** since WWII.² In 2016, **armed conflict** caused high numbers of civilian casualties, massive displacements and **humanitarian crises**, putting efforts to eradicate poverty in peril for years to come.

Furthermore, the level of **trust in governments is declining** despite decades of progress in promoting democratic governance and improving public administration. Violent extremism and intolerance for cultural and religious diversity is a growing trend across the world. As a result, international human rights norms and principles are threatened, presenting a great risk to the successful achievement of the SDGs.

Governments and development organizations will **need to adopt innovative tools and agile approaches** to deal with the increasingly interconnected and dynamic challenges of the next ten years. Using behavioural insights, strategic foresight, data innovation and new financial instruments, policy-makers will be able to make long-term decisions in line with a strategic vision, rather than responding to crises in short-term and unsustainable ways.

- b) What are the **highlights** of your Office’s current work in terms of leveraging technology and innovation to build more sustainable and resilient societies?

The UNDP Innovation Facility has provided catalytic funding and advisory support to **142 initiatives in over 80 countries** to promote the usage of new methodologies, technologies and financing models to maximize development impact. Over **40% of the projects are in crisis-affected countries** with fragile economies or with a **humanitarian** plan in place.

Data innovation for resilience

In the field of **data innovation**, UNDP Country Offices partnered with the private sector, academia and government to explore the potential of emerging data sources and platforms (including big data) to improve near real-time monitoring, corrective action and programming for beneficiaries across development and crisis contexts. For example, UNDP **Lebanon** is piloting a WhatsApp survey **tool to map social stability and inter-community tensions**. This tool aims to gather localized data by establishing an open two-way communication channel between UNDP and its beneficiaries, serving the dual purpose of a proactive crisis response system. Following a

¹ Please see the UNDP piece on SDG 1 in this Report.

² <https://www.weforum.org/agenda/2016/06/the-world-continues-to-spend-enormous-amounts-on-violence-and-little-on-building-peace/>

successful pilot phase, which mostly worked with Syrian refugees, the tool will be tested in a larger city, reaching more vulnerable and volatile geographies.

Similar technology is being tested in **Sudan to tackle the traditional data gaps prevalent in poverty mapping in conflict-affected areas**. In this project, official poverty statistics are being complemented by big data from night time lights, mobile top-up data and electricity consumption to provide policy-makers with a more complete picture of where the poor populations reside. The first two phases of the pilot led to a 70 percent increase in efficiency of data collection. The following phase is leveraging resilient partnerships with leading academic institutions and national telecom providers to hone the project's expertise on big data analytics. Ultimately, the project aims to equip policy-makers with the data necessary to address poverty in Sudan.

Uruguay is testing how **social media monitoring can enhance disaster risk reduction** and alert vulnerable populations. Capitalizing on the social media and digital footprint of the millennial generation, UNDP Uruguay is using these first mile information sources to strengthen the last mile delivery of services during emergencies. Crowdsourcing real-time geographic information from social media to identify emergency situations, disseminating mass warning messages and collecting qualitative information directly from the affected people is ensuring greater precision and immediacy in emergency situations. Currently in the software development phase, the scaling-up strategy of this initiative has already been analyzed from the operational, technical, institutional and financial perspective.

12 Country offices across Africa, the Arab States, Asia Pacific, Eastern Europe and Central Asia are testing **new sources of data for tier III SDG indicators** (especially for SDG 16). These are indicators for which internationally established methodology or standards are not yet available, and data gaps persist. The speedy progress of this initiative is visible from the country offices already developing prototypes and securing the data, demonstrating significant reductions in time and costs.

And finally, the Spatial Data Sandbox project being piloted in partnership with NASA, National Geographic and academia will enable over 140 countries to better use spatial data related to the nexus between environment and SDGs. The **spatial data** obtained through the **mapx.org tool** helps policy-makers have a more **accurate understanding of changes in biodiversity** thereby aiding them in enhancing decision-making for resilience and environmental conservation.

Remote sensing for resilience

UNDP supports the use of **drones** to reduce the time and resources needed to map vulnerabilities and gaps, arming policy-makers with crucial information for faster corrective action. For example, in **Uganda**, UNDP and UNHCR supported the development of the first ever refugee settlement base map, an innovative tool to support the community make evidence-based development decisions to support risk-informed development in the country's oldest refugee settlement. The base map was created by operating a drone high above the settlement.

Similarly, **drones** are being utilized in the **Maldives to provide risk maps of the island communities** that are most vulnerable to the impacts of natural-hazard induced disasters and climate change. This project enables better informed policy decisions and actions to ensure the resilience of over 160 inhabited islands spread over a vast area. The usage of drone technology has helped reduce the time required for mapping from **one year to one day**. **Bhutan** uses drone technology to quickly **assess the damage of natural disasters**, which is especially time efficient

given Bhutan's mountainous landscape. **Costa Rica** is using drones to monitor wetlands, **Rwanda** is leveraging sensors via the Internet of Things (IoT) for water management. **Zambia**, FYR **Macedonia** and **Nepal** are also exploring the use of sensor data from of drones to inform local solutions. Through 2017, UNDP in partnership with UNOOSA, UNITAR/UNOSAT, UNV and space agencies supported 26 country offices with geo-spatial maps and capacity building to aid their analysis and disaster response.

Next Generation Citizen Engagement Platforms

UNDP Country Offices around the world are exploring the next generation of technologies to create best-in-class solutions together with the Governments and communities they serve to foster improved governance and reduce the causes of conflict, mistrust and social inequality. This includes testing the applications of blockchain in Indonesia, Egypt, Palestine, Algeria, Serbia, Armenia. Mobile feedback mechanisms are also increasingly being mainstreamed together with Government to empower citizens in **Papua New-Guinea** to report corruption in public institutions ("**Phones against Corruption**"), enhance public service delivery to the poor in Mauritius, incentivize behaviours conducive to better HIV/AIDS treatment outcomes in **Chile**. In **Bhutan**, parliamentarians and their constituents connect through videoconference program called the Virtual Zomdu ("Zomdu" is a meeting of residents of villages or communities). The facility provides real-time face to face interactions and discussions between MPs and their constituents on new bills, national issues and community based issues.³ **Globally**, the **nbsapforum.org platform** enables over 4,100 policy-relevant practitioners to share information on preserving biodiversity and increasing efficiency in environmental protection through knowledge sharing. ICTs are increasingly help build inclusive and accountable institutions that engage citizens through open data, online platforms, virtual dialogues and rapid action.

UNDP teamed with IBM Research to use machine learning to automate the 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. The RIA is a tedious process which typically takes experts three to four weeks to complete and entails manually reviewing hundreds, and in some cases thousands, of pages of documents and assessing alignment of national development priorities with the Global Goals for Sustainable Development. Using machine learning, the initiative developed an algorithm that has been tested to evaluate the national development plans of five countries (Bhutan, Cambodia, Liberia, Mauritius, and Namibia) where manual RIAs were already undertaken. This was done to compare the results from the application of the algorithm with the results of the manual RIAs conducted by experts. The overall results [have been very positive](#), with the system identifying a significant number of relevant national targets that align with the SDG targets. In some cases, the system has also been able to identify aligned national targets that were not picked up by experts when conducting the manual RIAs. Similar encouraging results were seen on applying the algorithm to the national plan of Papua New Guinea, a country for which a RIA has not yet been performed. Of significance is that with the help of this system, the time taken to conduct a RIA could be substantially reduced, from three to four weeks to three to four days. The success of this endeavour is noteworthy as it will help countries to quickly identify gaps in alignment thus enabling them to better integrate the SDGs into their planning frameworks based on their specific context and priorities.

Behavioural Insights for Resilient Communities

Technology plays a tremendous role in leapfrogging development dividends. However technology is part of a chain of dynamic collaboration among invested, trusted and diverse stakeholders. Just

³ https://www.youtube.com/watch?feature=player_embedded&v=n6iqW-ILsNg

a mobile phone app or disaster-mapping UAV is not enough to ensure more resilient town planning or more responsive governments. At UNDP we invest in an integrated approach to leverage the most relevant and up-to-date concepts to create better development results. This includes new methodologies, such as behavioural insights and human-centered design, to create lean policies and user-friendly public services. The UNDP Innovation Facility has supported the creation of public sector innovation labs based both within the UNDP and in partner governments to facilitate more resilient policy-making and improved service delivery. Several of them are testing the **usage of behavioural insights**, for example, in **Moldova** there is an on-going initiative on using **behavioural nudges to increase tax compliance**, thereby strengthening the government's ability to mobilize resources and allocate them according to the local needs; in **Tunisia and Yemen**, behavioural interventions will be tested **to prevent violent extremism** with the goal of reducing the influence of extremist groups on young people, thereby reducing the propensity of radicalization in 2018; and in **Georgia and South Africa**, UNDP and UN Women are together supporting a behavioural intervention in reducing bystander apathy in cases of Gender-Based Violence (GBV), which will contribute to providing victims of GBV with the help they need.

UNDP is also exploring a number of **emerging financial vehicles** to unlock greater resources and stability. Serbia, for example is prototyping two alternative finance initiatives to build economic resilience. Serbia became one of the first countries to explore the possibilities of a national **universal basic income programme** testing a possible solution to the threat of unemployment and job displacement that increased automation poses to social cohesion in communities. Serbia also deployed a **social impact bond to address youth unemployment** together with UNDP, local partners and the Finnish Innovation Fund Sitra.

- c) Please provide an assessment of **resilience gaps**, or vulnerabilities, and areas requiring urgent attention within the context of the work of your Office and pertaining to building more sustainable and resilient societies for the advancement of the 2030 Agenda.

Resilience gaps exist across all 17 SDGs and stem from governments' inability to analyse real-time data and foresee emerging threats, hampering their ability to create effective contingency plans. This could be a threat related to climate change, resource management, security issues or economic cycles. Thus, futures thinking and foresight are key methodologies in increasing the resilience of governments to create contingency plans and procedures for possible disaster scenarios. The UNDP through its Innovation Facility and Global Centre for Public Service Excellence has been promoting these ideas through horizon scanning and scenario modelling activities across the globe.

Pertaining to the 2030 agenda, UNDP supports the roll out of the comprehensive Conflict and Development Analysis (CDA) tool developed and endorsed by the UN Development Impact Group, to guide Country Offices and practitioners in conducting conflict analysis and applying the analysis to programming and strategic positioning. It also serves as technical lead for the World Bank, the UN and EU joint support for assessing, planning, and mobilizing efforts geared toward recovery, reconstruction, peacebuilding and development in countries affected by crises (via the mechanism of joint Recovery and Peace Building Assessments (RPBA)⁴. RPBA is a joint approach to identify and address immediate and medium-term recovery and peacebuilding requirements while laying the foundations for the elaboration of a longer-term recovery and peacebuilding

⁴ <http://www.undp.org/content/undp/en/home/democratic-governance-and-peacebuilding/conflict-prevention/conflict-analysis-assessment.html>

strategy in a country facing conflict or transitioning out of a conflict-related crisis. It serves as a methodology and/or platform for joint analysis and planning, designed to maximize the effectiveness of national and international recovery and peacebuilding efforts. On the front of climate change, there is a gap in the true understanding of, and accounting for, the value of nature in delivering on SDGs, including food, water, poverty alleviation, disaster risk reduction, health, economic growth, climate goals. Hence, much of UNDP's work is focused on bridging the gaps in climate and disaster resilience.⁵

- d) Please share the most important **challenges and opportunities**, as well as valuable **lessons learned**, your Office has encountered in supporting the advancement of the 2030 Agenda through the use of technology and innovation to strengthen resilience and inclusion in an integrated manner.

There is a growing demand from Governments and communities for a new set of approaches and methods that goes beyond the traditional menu of incremental solutions and *business as usual* approach to address development and resilience issues at scale. This shift can be characterized by the following trends: the need for a shared-value alliance of partners to tackle complex SDG challenges through innovation and novel approaches; the increased growth in funding of pay for success or outcome-based financing models; and the need to deepen horizon scanning and foresight capabilities to harness disruptive new solutions for the SDGs.

The most important challenge in building resilience into the 2030 agenda is leveraging technology and innovation approaches to create systems transformation. Though economies are fragile, infrastructure damage is rampant and the appetite for risk in crisis contexts is low, the potential to build back better using novel approaches to leapfrog the futures of the next generation are enormous. When successfully harnessed, innovations build on each other, ushering in new ways of thinking and unleashing creative disruption. To address disaster risk reduction—and fast in the era of climate change—innovative approaches offer a transformative journey to a safer future. Analysis of the UNDP innovation portfolio has shown that Country Offices that embrace innovation a) create double the partnerships with the private sector and IFIs; b) are 20% more likely to co-create solutions with youth; and c) unlock further funding for SDG achievement efforts.

- i. If your Office has work related to the **Sendai Framework for Disaster Risk Reduction** 2015-2030, please share any specific measures that have been put in place to reduce disaster risk through the Framework.

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- e) Please share **strategies, plans, policies or initiatives** in which your Office has been involved where different stakeholders – such as government, civil society organizations, private sector and academia – engage in **coordinated actions** to enhance resilience at the local, national or international levels. What approaches have proven effective in this respect?

⁵ <http://www.undp.org/content/undp/en/home/climate-and-disaster-resilience.html>

The UNDP works closely with stakeholders at all levels to address issues that threaten the peace, security and stability of societies, and to address root causes of issues in order to build resilience.

- The UNDP Innovation Facility is a founding member of the Global Alliance for Humanitarian Innovation (GAHI)⁶, which aims to bring together humanitarians, businesses, governments and innovation hubs to scale innovation and achieve humanitarian impact.
- UNDP works closely with UNODC, UNDESA, UNESCO and WHO on dialogues and campaigns to assist the implementation of the UN Convention against Corruption, among others.
- In its efforts to advance free, meaningful and active participation, UNDP works in close partnership with other UN entities and a diverse range of civil society organizations, in particular those representing women, youth and marginalized groups. UNDP also hosts the Technical Secretariats of the UN Partnership on the Rights of Persons with Disabilities (UNPRPD) and the UN Indigenous Peoples Partnership (UNIPP).
- UNDP serves as the virtual secretariat for the UN system for the tri-partite UN-WB-EU RPBA assessment, supports UNDP's engagement with the UN Peacebuilding Architecture and PBF, and represents UNDP in the follow-up to the resolutions on Sustaining Peace.
- UNDP works with national partners to design and conduct inclusive, participatory, transparent and nationally owned processes – including through support for robust civic education and public consultation, with a particular emphasis on reaching women, youth, and vulnerable or marginalized groups. UNDP also assists national actors to overcome political differences and find consensus and common purpose in constitutional reform.
- UNDP works in concert with OHCHR and the Global Alliance for National Human Rights Institutions to strengthen the work of NHRIs and accountability mechanisms. It also supports engagement with international human rights machinery such as the Human Rights Councils' Universal Periodic Review (UPR) process; as well as support the development of National Human Rights Action Plans.
- UNDP works closely with UN agencies and external partners on efforts at the local level: the Global Taskforce of Regional and Local Governments, humanitarian NGOs including IRC as part of the Global Alliance of Urban Crisis; UNCDF and UNV on country level projects; ILO and FAO on local economic development.
- UNDP takes a partnership approach to parliamentary assistance and leveraging the knowledge and expertise of external partners. UNDP works in close partnership with other UN entities, including UN Women and PBSO, as well as the Inter-parliamentary Union, regional and thematic parliamentary organisations, IFIs, the Club de Madrid, and national political party foundations and multi-party democracy organisations.
- In preventing violent extremism, UNFP works closely with the UN Counter-Terrorism Implementation Task Force (CTITF), the UN Counter-Terrorism Centre (UNCCT), PBSO-PBF; regional and sub-regional organizations; Member States; law enforcement and security communities; civil society (youth, women's and faith-based organizations); academia and think tanks.
- UNDP supports a \$6 million GEF project that uses collaborative, consensus-based reporting on biodiversity status and trends around the world. By using an agreed upon framework (of the Convention on Biological Diversity Secretariat), and by carefully designing the guidance materials, UNDP is able to drive national dialogues on the loss of biodiversity and the implications for achieving the SDGs.

⁶ <http://www.thegahi.org/about-gahi>

- UNDP in partnership with UNOOSA, UNITAR/UNOSAT, UNV and space agencies supported 26 country offices with geo-spatial maps and capacity building to aid their analysis and disaster response.
- f) Please share the most relevant **examples and recommendations** related to your Office’s work in building more sustainable and resilient societies using technology and innovation, as well as emerging issues in this area likely to affect the achievement of the SDGs.

In order to ensure sustainable and resilient societies, innovative projects should be:

- Focused on desired impact
 - In pursuing latest technologies and innovations, it can be tempting to get caught up in “solutionism”. Therefore, it is important to maintain the focus of development, creating positive impact on communities as the end goal and using technology as a means to do so. Innovation efforts should be tied to concrete outcomes with scalability at the heart of the design.
- Tied to specific demand/needs
 - The best innovations stem from a concrete need from a community and are tailored to be context-specific; this ensures the successful adoption and sustainability of initiatives.
- Evidence-based and forward-looking
 - Initiatives should be grounded in data and evidence, preferably real-time evidence that provides a clear understanding of the conditions on the ground.
 - Initiatives should utilize foresight techniques to analyse alternative future scenarios and determine the solutions that will have the highest chance of endurance.
- Ethical
 - Much of the new technologies are relatively unregulated pose significant risks, such as invasion of privacy. Additionally, methodologies such as behavioural insights also pose questions regarding the ethics of nudging humans to adopt certain behaviours. Initiatives should assess risks in advance and aim to harness the power of new technologies/methodologies in responsible ways.

Examples of on-going work related to building more sustainable and resilient societies using technology and innovation are shared in “B” section of the form.

- g) What can **ECOSOC** do to better leverage the work of the UN system in supporting countries to pursue integrated policies and apply technology and innovative solutions at the national, regional and global levels, to effectively enhance resilience and manage risks in the implementation of the 2030 Agenda?

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