3 April 2019/Final

TERMS OF REFERENCE FOR CONSULTANT

UN Department of Economic and Social Affairs, Division for Public Institutions and Digital Government

Development of a training toolkit for "Government Innovation for Disaster Risk Reduction and Resilience"

Background and objectives

The United Nations General Assembly Resolution A/RES/69/327 emphasizes the growing need to strengthen public institutions and public services in support of sustainable development. The 2030 Agenda for Sustainable Development, adopted in 2015 by all member states, aims to achieve the 17 Sustainable Development Goals (SDGs) as a holistic and interdependent agenda of both developed and developing countries. It aspires to "leave no one behind" and to pay particular attention to countries in special situations. The Sendai Framework for Disaster Risk Reduction 2015-2030 is an integral part of the 2030 Agenda with its seven targets and indicators embedded across the SDGs. The Sendai Framework advances the achievement of eleven goals (1, 2, 3, 4, 5, 6, 9, 11, 13, 14 and 15) to ensure resilience[1] in progress on *sustainable development across all UN Member States.*[2]

Though it universally applies to all Member States, the 2030 Agenda underscores the special challenges that the most vulnerable countries, including Least Developed Countries (LDCs), Land-locked Developing Countries (LLDCs) and Small Island Developing States (SIDS), face in realizing the SDGs.[3]
It is well-known that disasters in vulnerable countries can rapidly setback progress towards achieving the SDGs.

Given the importance to address the above challenges, the **2018 High Level Political Forum (HLPF) for Sustainable Development** focused on the theme of "Transformation towards sustainable and resilient societies."[4] Resilience is also noted as a regional priority under the Framework for Pacific Regionalism and the 48th Pacific Islands Forum Leaders Communiqué where governments "committed to ensuring a whole-of government engagement" with regional priorities[5].

The UN DESA 2018 E-Government Survey on "Gearing E-Government to Support Transformation towards Sustainable and Resilient Societies" notes (1) that digital technologies have a potential for strengthening resilience and reducing vulnerability. For example, End-to-End early warning systems provide timely and effective information to avoid or reduce risk and to prepare for effective disaster response. In monitoring and predicting disasters Unmanned Aerial Vehicles (drones) have become integrated and successful tools in disaster preparedness in the form of monitoring, measuring and mapping for Disaster Risk Reduction (DRR).2 Blockchain is being used in the humanitarian contexts, while responding to disasters, for cash transfers and citizen identification. Furthermore, citizen science,3 which refers generally to involving

[1] UNISDR defines resilience as "The ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management."
https://www.preventionweb.net/files/50683_oiewgreportenglish.pdf
[2] https://www.unisdr.org/files/50438_implementingthesendaiframeworktoach.pdf
[3] See "Making the 2030 Agenda Deliver for SIDS, Building on the SAMOA Pathway,"
https://sustainabledevelopment.un.org/index.php?page=view&type=20000&nr=324&menu=2993
[4] https://sustainabledevelopment.un.org/hlpf/2018#prep
[5] 48th Pacific Islands Forum Leaders Communiqué, 8 September 2017, Apia, Samoa

members of the public in the collection and analysis of data relating to the natural world, typically as part of a collaborative project with professional scientists, offers an innovative, multi-layered approach that empowers residents to collect diagnostic information about their community environment. It is a promising opportunity for providing extensive, real-time information for disaster risk reduction, management and for resilience building.4,5,6 There is also an increasing number of frontier technologies and innovations that public administration can leverage to ensure resilience and the achievement of the SDGs and the Sendai Framework. By leveraging innovations in technology such as Geographic Information Systems (GIS), remote sensing, big data and data analytics, artificial intelligence (AI), blockchain, and citizen science, governments might be better equipped to effectively anticipate, prepare, and respond to risks and disasters.

Aligning the national SDG planning capacities with ongoing agendas for resilience and climate change, including the Paris Agreement and Sendai Framework for Disaster Risk Reduction (2015-2030), is also crucial to ensure positive synergies with existing national development efforts. The Government of the Bahamas, with the support of UN DESA, organized in February 2017 a Symposium on Implementing the 2030 Sustainable Development Agenda in Small Island Developing States (SIDS): Equipping Public Institutions and Mobilizing Partnerships. This Symposium reflected on how vulnerable countries such as SIDS can achieve the 2030 Agenda, the Sendai Framework priorities and the SAMOA Pathway through strengthened capacity development on innovation and technologies for resilience.

UN DESA's Division for Public Institutions and Digital Government (DPIDG) and its Project Office on Governance (UNPOG), in collaboration with the Government of Republic of Korea, organized a Symposium in December 2017 on Building Effective, Inclusive and Accountable Institutions and Public Administration for Advancing the 2030 Agenda for Sustainable Development. During the Symposium, it was recognized that countries in vulnerable situations are generally struggling to technologically advance, implement digital innovations, and mobilize and manage resources to advance resilience effectively given their vulnerability to disaster risks and the weak capacity of their public institutions.

Through the 2017-2018 UNPOG Capacity Needs Assessment of over 20 countries in Eastern Africa and in Asia-Pacific, information was gathered on the key challenges facing countries in special situations. Countries highlighted that promoting disaster risk reduction and resilience, as well as improving public service delivery through innovation and the use of ICTs, were the top two priorities for which capacity development support was needed.

In response to expressed country needs during the UN DESA and UN Office for Disaster Risk Reduction 2018 Sri Lanka Forum, a consultant is sought to develop a training toolkit to build capacities to spearhead innovations and utilize ICTS and key frontier technologies in government to drive DRR and resilience. The toolkit will examine what innovative technologies are being applied for DRR, what public service innovations are occurring in vulnerable states, and how they can be scaled in practice across developing country contexts looking at finance and technology transfer in practical formats to increase public administration skills.

In line with these requests, the key focus of this consultancy is to develop a training toolkit that will strengthen public administration capacities on the following priority areas i) technology gaps and public governance frameworks for disaster risk reduction and sustainable development in vulnerable states ii) digital government and public service innovation for resilience, iii) frontier technologies and disaster risk reduction, iv) the means of implementation to leverage innovations in technology through public

programmes – finance and technology transfer and v) measuring progress on DRR and resilience through frontier technologies.

It is intended to build on and take into account lessons learned from continued trainings by UN DESA/DPIDG on digital government, frontier technologies and public service innovation for resilience.

Objective: Develop a training package to strengthen public administration capacities on *Government Innovation for Disaster Risk Reduction and Resilience* - hereafter referred to as the "training toolkit".

Work Assignment

Under the supervision of UN DESA's Division for Public Institutions and Digital Government and its Project Office on Governance (UNPOG), the consultant will be responsible for performing the following tasks:

- To conduct a preliminary desk research on the following priority areas: i) technology gaps and public governance frameworks for disaster risk reduction and sustainable development in vulnerable states, ii) digital government and public service innovation for resilience, iii) frontier technologies and disaster risk reduction, iv) the means of implementation to leverage innovations in technology through public programmes – finance and technology transfer and v) measuring progress on DRR and resilience through frontier technologies. The research will especially review existing training curricula in these aforementioned substantive areas. The research may involve consultations with UNISDR, UNDP, national governments, sub-national governments, schools of public administration and civil service academies, to ensure a consultative process and the development of partnerships to test and roll out of the training curricula. **The research's main output will be recommendations for key focus topics of training modules in the form of a *detailed draft outline for a 1- week training course on these substantive topics.***

- To conduct a comparative study and develop a training handbook on the following priority areas i) technology gaps and governance frameworks for disaster risk reduction and sustainable development in vulnerable states ii) digital government and public service innovation for resilience, iii) frontier technologies and disaster risk reduction, iv) the means of implementation to leverage innovations in technology through public programmes – finance and technology transfer and v) measuring progress on DRR and resilience through frontier technologies. **The main output will be to organize the research into a training handbook, background readings and cases studies to accompany future trainings and ensure evidence-based training delivery.**

- To develop a training package translating the above knowledge content into a one-week training curriculum including background readings providing and introduction and overview on key topics and cases, Powerpoint presentations on each core topic, tools for assessments, training quizzes, exercises, infographics, and similar training tools. **The main output will be a one-week training curriculum and accompanying training tools.**

Duration of contract

The total work period of the consultant will be from 1 May to 30 September 2019.

Duty Station or Location of Assignment
The consultant shall work remotely, home-based with regular phone/skype calls as needed.

Travel
No travel is required.

Expected outputs and delivery dates

Timetable after signature of contract

1) Preparation of first draft trainings curriculum/detailed outline for a 1- week trainings course and submission to DPIDG - (in interaction with DPIDG). This is considered as **OUTPUT 1** – by 15 May 2019; DPIDG reverts with any comments;
2) Draft trainings handbook incl. background reading resources by 12 July 2019. This is considered as **OUTPUT 2**; DPIDG reverts with any additional comments;
3) Draft trainings presentations (Power Point) for use during a 1-week training, incl. Good Practices /Lessons Learned case studies. This is considered as **OUTPUT 3** – by 1 August 2019; DPIDG reverts with comments;
4) Draft guidance concept and materials for group work, cases, learning quiz. This is considered as **OUTPUT 4** – by 15 August 2019, DPIDG reverts with comments;
5) Finalization of the complete training toolkit, inclusion of annexes (assessments, exercises, infographics, quizzes, etc.) for final submission by consultant. This is considered as **OUTPUT 5** by 30 September 2019.

Fee and payment schedule
The consultant will be paid a total of $25,000 USD in 4 instalments, upon satisfactory submission of outputs.

- First instalment of $5,000 upon completion of OUTPUT 1, by 15 May 2019
- Second instalment of $5,000 upon completion of OUTPUT 2, by 12 July 2019;
- Third instalment of $5,000 upon completion of OUTPUT 3 and 4, by 15 August 2019.
- Final instalment of $10,000 upon completion of OUTPUT 5, by 30 September 2019.

Performance indicators
The following performance indicators will be used to evaluate the work undertaken by the consultant and certify the payment of installment payments:

- Timeliness of submissions of the expected outputs in line with the substantive requirements of the present TOR and in line with requests from the immediate supervisor.
- Value of services rendered in relation to their costs
- Readability of material
- Receptive / responsive to feed-back from staff members
- Quality of analysis, recommendations or conclusions in reports/studies
- Comprehensiveness of data/analysis

- Relevance and utility of training materials

Qualifications

Education:

Advanced university degree in the area of disaster risk reduction and resilience, technologies for sustainable development, and related areas.

Experience:

- A minimum of ten years of established capacity development experience on frontier technologies, government innovation and disaster risk reduction/resilience in developing countries, including the development and leading the delivery of training contents and programmes for Public administration officials, on the Sendai Framework and/or 2030 Agenda.
- Experience in training on the technology transfer in a DRR context.
- Experience in conducting research with excellent understanding and overview of the academic literature in the area of resilience and DRR;
- Experience in the design and implementation of academic/trainings courses in the area of technology transfer, disaster risk reduction, public programmes for resilience, preferably in developing countries;
- Proficient in the use of all Word Office programs, incl. PowerPoint, and proficiency with internet research tools.

Languages:

Fluency in verbal and written English is required. Knowledge of additional UN languages is an asset

Supervisor/Project Manager

These Terms of Reference are to be implemented under the direct supervision of Ms. Sara Castro de Hallgren, Programme Expert, UN DESA/DPIDG/UNPOG and the overall guidance of Mr. Keping Yao, Governance and Public Administration Expert, UN DESA/DPIDG/UNPOG and Ms. Adriana Alberti, Chief, Programme Management and Capacity Development Unit, UN DESA/DPIDG.