United Nations Children's Fund

TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS AND CONTRACTORS

Title	Funding Code	Type of engagement	Duty Station:
Digital Public Goods (DPG) Technical Consultant – National	Grant:	National Consultant Individual Contractor Part- Time	Freetown, Sierra Leone (including travel to districts).

Purpose of Activity/Assignment:

Background.

Since 2014, UNICEF Sierra Leone has been championing the use of innovation to help identify and address the issues that affect the children and women of Sierra Leone. Work done over the past 8 years has established UNICEF Sierra Leone as the leading agency for innovative programming to help deliver results for children in Sierra Leone.

In 2018, the Government of Sierra Leone established a new Directorate of Science, Technology and Innovation (DSTI). DSTI's mandate is to use Science, Technology and Innovation to support the Government of Sierra Leone to deliver on its national development plan effectively and efficiently; and to help transform Sierra Leone into an innovation and entrepreneurship hub. UNICEF Sierra Leone has already established a workplan with DSTI to promote and enable the use of Innovation in Sierra Leone for improved results for children.

The Digital Public Goods Alliance (DPGA) aims to facilitate the discovery, development, use of, and investments in DPGs of high relevance for attainment of the Sustainable Development Goals (SDGs).

Digital Public Goods are defined as open-source software, open data, open AI models, open standards and open content that adhere to privacy and other applicable best practices, do no harm and are of high relevance for attainment of the Sustainable Development Goals (SDGs).

Purpose and objective of the assignment:

As part of Sierra Leone's role as a co-champion of the DPGA, and to strengthen the existing collaboration between UNICEF and DSTI on DPGs, this assignment aims to:

A) Provide product development support to selected DPGs created and/or curated by DSTI (60%).

B) Provide open-source-community management support to the same projects to strengthen local capacity & talent (40%).

The Digital Public Goods (DPG) Technical Consultant reports to the Innovation Specialist for general guidance and direction.

Scope of Work:

Under the general guidance and supervision of the Innovation Specialist, the post has the following key responsibilities including, but are not limited to:

- Provide product development/programming support to digital public goods such as, OpenG2P, GoSL USSD Services Platform
- Coordinate the engagement and technical cooperation with the UNICEF Office of Innovation.
- Support any solution development to be prepared to meet the DPG Standard and to be included in the DPG Registry.
- Provide technical assistance to each solution as outlined in the description of the assignment below.
- Provide opensource community management support to digital public goods projects to strengthen local capacity & talent.

- Identify key open-source community organizations, academia and/or private sector to be engaged in each of the projects
- Advocate for the adoption of open-source best practices in the development and maintenance of these projects' software repositories
- Develop and deploy clear and structured documentation for all project repositories
- Develop, deploy and manage issue and pull request templates for each of the projects and position these projects overall to welcome external contributions
- Regularly review and incorporate community contributions functions/accountabilities:
- Underpin UNICEF's role as a convener to enable the scale-up of the DPGA at country level.
- Maintain collaboration with government of Sierra Leone and identify new opportunities for engaging other stakeholders to contribute to the DPGA for Sierra Leone.
- Perform other related duties as assigned by the supervisor to ensure the success of the team, as needed.
- Work with other UNICEF sections such as Health and Education and support in the delivery of cross programmatic priorities (eg through Hackathon)



Work Assignment Overview:

	Ecosyst			1.1.1	Academia	Curriculum	work with universities and the ministry of basic and senior secondary education to include digital public goods awareness and their potential impact on development within the curriculum		
						Uni Mentors	work with universities so that we can identify potential mentors and integrate them with the digital learning hubs to promote advocacy of digital public goods		
		5	Advocacy			Learning Passport	develop content for the learning passport that introduces digital public goods to the user and why they are beneficial to the development sector		
1	em Develo pment			1.1.2	Digital Learning	0	develop content to help students become digital public good mentors and go on to support further students		
					Hub	DPG Clinics	support in setting up and hosting digital public good clinics within the digital learning hubs		
						DPG Clinics	help promote digital public goods via the potential roadshow UNICEF will deliver in 2025		
		1.2	.2 Governance	1.2.1	Steering Committee	Updating the Steering Committee	develop the monthly reports and host the quarterly meetings for the steering committee for DPGS		
		1.2		1.2.2	DPG Board	Creation of decision- making mechanism	support the digital public good board in making informed decisions when they meet monthly (virtually)		
	DPG	2.1 PG	2.1BootcampIntense tutorialspublic good boot camps that will be delivered one with supporting entrepreneurs in fitted DPG criteria2.1DPG Cycles2.1.2HackathonsOperationalization of the bootcampsupport the operation around the boot of the programme runs to time and delivered outputs2.1DPG Cycles2.1.3Innovation SLSupport for ongoing developmentThis is to support the best DPG to grow, operational comparison of the programme runs to time and delivered outputs2.1.4DeploymentUser acceptance and pilotThis is to ensure that the software meets expectations2.1.5BeviewPost projectThis is to evaluate the project success, id	2.1.1	Bootcamp	Intense tutorials	be a key mentor and support mechanism for the digital public good boot camps that will be delivered in 2025 come with supporting entrepreneurs in further meeting the DPG criteria		
				DPG Cycles	DPG Cycles	2.1.2	Hackathons	-	support the operation around the boot camp and ensure the programme runs to time and delivers its desired outputs
						2.1.3			This is to support the best DPG to grow, delivered through partner
2	Deliver y			This is to ensure that the software meets the DPPI's expectations					
				2.1.5	Review		This is to evaluate the project success, identify lessons learned, and gather feedback for future improvements		
		2.2	2.2 Monitor, Support & Report (M,S&R)	2.2	2.2	Support &	2.2.1	DPG framework	DPG Framework
						2.2.2	PresTrack M,S&R on DSTI on the development of a app pregnancy monitor maternal mortality, this is led by the Ministry of		



			2.2.3	RapidPro	Expanding the platform to other UN agencies and Government agencies become self-financing
			2.2.4	OpenG2P	Support DSTI in the development of a Government to Person payment system
			2.2.5	STEM Server	Support the scale up and development of content for an offline STEM server to provide access to children to the digital environment for marginalised children
		226 Health DPGs	The synchronisation of existing health software to be interoperable to the bedrock software of the MoH, DHIS2		
			2.2.7	Sign Language App	The development of content to teach a universal sign language to children with hearing disabilities & their families

Impact Framework:

The overarching goal of the proposed DPG activities for 2024 is to scale up existing DPG activities, increase local involvement in developing DPG solutions, and formalize the established DPGSL network's governing structure.

Objectives		pected Outputs	pected Outcomes			
Objective #1: Ecosystem development1. Deployment of DPG enabling environment2. Launch or partnership with female-centric initiatives3. Development of roadmap for DPGSL4. DPG Board selection5. Approval of SC and TWG TOR6. Provision of DPG project management template for other LMICs7. Deployment of 2 health DPGs0bjective #2: DPG Delivery1. Identification of DPG host or		1. 2. 3. 4. 5.	 Increased female involvement in DPG events and solutions by up to 100% Cohesive DPGSL network Increased nomination of locally developed DPG Increased involvement of local developers in DPG 			
Objective #2: DPG Delivery 1. Identification of DPG host or owner 2. Developed impact analysis metric 3. Analysis and reporting structure				Document DPG	s in Sierra Leone	
Metrics: Table 5: Project implementation metric						
Indicator	Baseline	Target				
Number of locally developed	2	5				

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Number of adolescents and youth aware of DPG	5,000	20,000
Number of adolescent and youth participating in DPG workshops or events	500	1,000
Number of adolescent girls involved in DPG workshops or events	150	300
Improvement on knowledge amongst government staff	20	50
Number of start-ups participating in DPG workshops or events, (including ensuring adolescent girls and young women participate)	10	20
Number of tertiary institutions participating the DPG course	5	7

Stakeholders:

Government

- Directorate of Science, Technology, and Innovation
- Ministry of Information and Communication
- Ministry of Health and Sanitation
- MBSSE
- MTHE

Academia

- Eastern Technical University
- Ernest Bai Koroma University
- University of Sierra Leone
- Njala University
- Limkokwing University of Technology and Innovation (In-kind) Carnergie Mellon University Africa (To be explored)
- Carnergie Mellon University (To be explored)

Innovation Hub

- Innovation SL (in-kind and connection to other private partners)
- Kamara Yokie Innovation Hub (In-kind)

Service Provider

• Orange Telecomms (To be explored)

UN Agencies / NGOs

• Plan International, UNDP, UNCDF

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Child Safeguarding						
Is this project/assignment considered as " <u>Elevated Risk Role</u> " from a child safeguarding perspective?						
🗌 YES 🔀	NO I					
Direct contact ro						
	cate the number of hours/m / physical proximity, with lim		•			
	ay have circa 4-5 a week wit SEA and UNICEF child safegu		-			nd will complete
Child data role	🛛 YES 🗌 NO					
	cate the number of hours/m ildren (name, national ID, lo			g OI	r transmitting persona	al-identifiable
Minimal if no exp	osure to personal identifiabl	le inforn	nation of childi	ren		
More information <u>Updates</u>	n is available in the <u>Child Saf</u>	eguardii	ng SharePoint	ano	d <u>Child Safeguarding F</u>	AQs and
Budget Year:	Requesting Section/Issuing Office:	g	Reasons why	/ CC	onsultancy cannot be	done by staff:
2024/25				Digital Public Goods are a part of the Innovation portofolio, and can be considered Frontier technology work. Given the technical nature of the work being outlined in the ToR, where there is a focus on Open Source Software Development, and a clear need for experience in the area of managing Open Source Software Development projects and communities a consultancy is required. This skill set is not readily available in UNICEF in general, as yet. Worth noting that this a skill set (software development & computer programming) which is not necessarily academic in nature and best served with experience.		
	al/Rolling Workplan: 🔀 Ye		, please justify	/:		
Consultant sourc	-				Request for:	
🔀 National 🔲	nternational 🗌 Both				🛛 New - Consulta	ncy
Consultant select	tion method:				Extension/ Ame	endment
Competitive Selection (Roster)						
Competitive Selection (Advertisement/Desk Review/Interview)						
If Extension, Justification for extension:						
Supervisor: Innovation SpecialistSta					Number of Days (working)	
			bruary 2024 31 st January 2025		1 st January 2025	230 (11.5 mths).

Estimated Consultancy fee	
Travel International (if applicable)	
Travel Local (please include travel plan)	
DSA (if applicable)	
Total estimated consultancy costs ⁱ	
Minimum Qualifications required:	Knowledge/Expertise/Skills required:
A university degree in Technology, Computer Science, Information Technology, Engineering or related field plus 7 years in a relevant field eg software development	 Given the bespoke nature of this role and the new and emerging nature of Digital Public Goods relevant experience will be prioritized over specific qualifications. Therefore, a minimum of 3-5 years of experience working in: The social innovation ecosystem engagement, mapping, entrepreneurship support programs, open-source development and working with and mentoring tech entrepreneurs Knowledge of frontier technology, open-source technology and digital public goods are highly valued. Familiarity with Sierra Leone's developer community organizations/landscape. Experience in programming languages including Java, Python, and Golang and familiarity with different frameworks such as Java/ Spring & Python/ Django are an asset. Previous experience developing projects in the open and the ability to demonstrate an active GitHub or Gitlab profile is an asset. Ability to work with a diverse team in a rapidly changing work environment and adapt to unforeseen changes. Experience working in the social impact space, international development or equivalent. Fluency in English is required, strong written and verbal competency is necessary.

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	Experience working in a developing country required, working in the West African region is considered as an asset
Administrative details:	Home Based Office Based:
Visa assistance required:	If office based, seating arrangement identified:
Transportation arranged by the office:	IT and Communication equipment required:
	Internet access required:
Request Authorised by Section Head	Request Verified by HR:
Endorsed by:	Approved by:

Text to be added to all TORs:

ⁱ Costs indicated are estimated. Final rate shall follow the "best value for money" principle, i.e., achieving the desired outcome at the lowest possible fee. Consultants will be asked to stipulate all-inclusive fees, including lump sum travel and subsistence costs, as applicable.

Payment of professional fees will be based on submission of agreed deliverables. UNICEF reserves the right to withhold payment in case the deliverables submitted are not up to the required standard or in case of delays in submitting the deliverables on the part of the consultant

Individuals engaged under a consultancy or individual contract will not be considered "staff members" under the Staff Regulations and Rules of the United Nations and UNICEF's policies and procedures, and will not be entitled to benefits provided therein (such as leave entitlements and medical insurance coverage). Their conditions of service will be governed by their contract and the General Conditions of Contracts for the Services of Consultants and Individual Contractors. Consultants and individual contractors are responsible for determining their tax liabilities and for the payment of any taxes and/or duties, in accordance with local or other applicable laws.