

Agreement for Performance of Work

Terms of Reference

This Technical support is requested by:

Unit:	WHE
Country Office:	Pakistan

1. Purpose

The purpose of the agreement for the performance of work is to work on and collaborate with the WHO Country Offices in Pakistan and the regional office with oxygen and biomedical needs and technical advice to increase oxygen access in the aftermath of the COVID-19 response.

2. Background

WCO in collaboration with WHO Headquarters, and the regional office (EMRO) is working on strengthening case management capacities in the country through timely access to medical supplies including oxygen supply systems. Since the start of the COVID-19 pandemic, affordable and sustainable access to oxygen has been a growing challenge in resource-limited and complex emergency countries. COVID-19 has put huge pressure on health systems, with hospitals in many resource-limited countries running out of oxygen, resulting in preventable deaths. Although vast work has been done in the medical oxygen ecosystem over the years, especially in its safe production and clinical use, it remains limited in its access and availability in many countries. The COVID-19 pandemic has highlighted this inequity. Access to medical oxygen in such settings is limited due to cost, infrastructure, logistical barriers, and in EMR, insecurity. Health facilities often cannot access the oxygen they require, resulting in the unnecessary loss of lives. During the COVID-19 response, the major challenge for WHO in support of oxygen is a lack of baseline information on oxygen resources in a country. Without having such an "O2 capacity mapping", it will remain challenging to deliver efficient and timely support to meet the urgent needs of oxygen in complex emergency countries. In summary, to address oxygen needs and gaps, develop contextualized solutions, and then procurement, installation, and commissioning, the foremost urgent action is to develop a current oxygen production capacity mapping. Presumably, the O2 mapping will lead to not only a better understanding of gaps in the availability of medical oxygen but also a plan to expand access. Associated with that WHO plans to develop fit-for-purpose approaches to filling the gaps in medical oxygen and build capacities and train healthcare workers in its use. The recent approval of oxygen resolution and increasing access to medical resolution in the executive board is one such example for the need of the hour.

Upon identification of the biomedical engineering working group (1 Senior Engineer (for coordination ICT, Punjab, ICT) and 2engineers each for (Sindh, Balochistan & KP, AJK GB) will be engaged per the above-listed country, the incumbent under the overall guidance of the WHO Representative and the focal person in the WHO Country Office will provide technical support in expanding the Oxygen access During the entire period of the contract, the experts are expected to provide technical support and expand already in the data collection procurement, installation, and maintenance of medical equipment supplied to various healthcare facilities by WHO, the Ministry of Health, DRAP, and partners, training medical and other technical personnel and providing technical advice on the correct use of

medical equipment at the request of Ministry of Health, DRAP/partners in coordination with, supporting and mentoring the biomedical counterpart

3. Planned timelines (subject to confirmation)

Start date: 01-11-2023

End date: 31-12-2023

4. Work to be performed

Output 1: Data Collection and Live Platform

Deliverable 1.1: Completion of Phase 2 of Live Oxygen Mapping with filling in a facility data

Deliverable 1.2: Update Baseline data for WHO essential Medical Devices.

Deliverable 1.3: Liaise with Focal Persons from the provinces and WHO provincial Team to consolidate and validate the data.

Deliverable 1.4: Design of specific training modules and possibility of other training certifications in collaboration with established manufacturers/institutes- POL-oxygen pipeline design (module wise).

Output 2: Procurement and Life Cycle Management

Deliverable 2.1: Provide support through WHO to the government in the needs assessment and planning of oxygen and medical devices.

Deliverable 2.2: Facilitation in another guidance document to streamline the procurement as required and representation of medical device aspects from WHO Pakistan.

Deliverable 2.3: Liaise with UNDP for PSA installation and UNICEF on oxygen support.

Deliverable 2.4: Liaise with WHO RO and HQ and work with them.

Deliverable 2.5: Develop & disseminate technical documentation, operations manual for repair and preventive maintenance procedures, and records for medical gas storage, distribution, and delivery devices e.g. mechanical pulmonary ventilation equipment and flowmeters etc.

Output 3: Regulation, Policy, and Innovation

Deliverable 3.1: Facilitation of DRAP with various regulations including Refurbished Equipment.

Deliverable 3.2: Support Innovators, Industry and Academia in the facilitation of oxygen devices

Deliverable 3.3: Engagement with various regulatory organizations such as Provincial health commission (E.g., PHC, SHC, etc.) and facilitation in developing standards and protocols and guidance documents

Deliverable 3.4: Engagement with MONHRSC to hold meetings on national oxygen and medical equipment policy covering all aspects regulation, policy, maintenance management, innovation, IVD etc.

Deliverable 3.5: Liaise with all UN agencies and partner organizations working with MONHRSC to avoid repetition of work and facilitation.

Output 4: Trainings & Workshops

Deliverable 4.1: Completion of the pilot training module programs, carry out training and certifications and extend the program to other equipment
Capacity building of PSA producers & users facilities on GMP,QRS , QC and maintenance of the medical gases & Biomed equip systems

Deliverable 4.2: Conduct National workshop of Oxygen manufacturers, POL, and Ghani gas for planning, coping with, and safe use of oxygen and its related medical devices.

Output 5: Rules and Policies by including TS MONHSRC, and DRAP

Deliverable 5.1: TS MONHSRC, and DRAP for inclusion of biomedical& oxygen equipment in national health vision, medicines and health technologies rules & policies e.g. infrastructure, supply, referrals, safe use, and consensus

Output 6: Enhancement of case management capacities through biomedical equipment assessment

Deliverable 6.1: Participate in the review and analysis of existing health equipment and installations (field assessments) in various sites, Modify the current inventory Tool to get a Rapid Assessment Tool suited for Pakistan.

Deliverable 6.2 Develop EDL of biomedical equipment/ devices through TWG , assessments on availability of standardized medical devices & technologies

5. Technical Supervision

The selected APW will work on the supervision of:

Responsible Officer:	Dr Michael Lukwiya	Email:	lukwiyam@who.int
Manager:	Dr Palitha Mahipala/Head of WHO Office	Email:	mahipalap@who.int

6. Specific requirements

- Qualifications required:

Advanced University (Master's) Degree in Biomedical engineering or related field required.

- Preference given to candidates with working experience with UN/NGOs/INGOs.

- Experience required:

• At least 3 years of relevant experience at the UN/INGOs including experience of working public systems procurement aspect.

- Skills / Technical skills and knowledge:

- Sound knowledge of public health and relevant issues.

- High sense of responsibility and strong organizational skills with ability to work under pressure.

- Ability to work both independently and in a team setting.

- Knowledge of emergencies management capacity building requirements in resource-limited environments will be considered an asset
- Excellent interpersonal, communication and negotiation skills
- Advanced computer literacy (Word, Excel, Power point, etc.).
- Language requirements:
 - English (Read - Write - Speak / Expert or Intermediate).

7. Place of assignment

WHO Country Office, Pakistan Islamabad

8. Medical clearance

The selected APW holder will be expected to provide a medical certificate of fitness for work.