

Sample terms of reference for request for proposals for drone logistics services

IDENTIFICATION

Anticipated start date

Anticipated completion date

Contract supervisor

BACKGROUND AND OBJECTIVES

<Organization> is looking to complement its in-country logistics through the integration of uncrewed aircraft system ([UAS] drone) technology, which can help extend reach and address other bottlenecks in the health supply chain. Various elements, including (but not limited to) <natural shocks and disasters, emergencies and security threats, challenging road network infrastructure, hard terrain, or other contribute <may adjust depending on a country context> to an already overburdened public health system, resulting in increased vulnerability of children and mothers. <Elaborate on the % of inaccessible areas, or % of paved roads> means that the public health supply chain faces numerous logistical challenges, which especially affect the delivery to hard-to-reach health facilities.

Drones have been proven to provide quick and reliable transportation services, carrying small packages of medical, immunization, diagnostics, nutrition and related commodities point to point or between a hub (district hospital, warehouse or distribution centre) and a spoke (secondary or tertiary health facility).

After the initial analysis, a number of health facilities have been identified that experience accessibility constraints throughout the year, which leads to lack of access to various health, nutrition and related commodities. Improving last-mile delivery and reaching programme or partner health structure locations requires provision of last-mile drone transportation services to effectively implement programmes, contributing to the following results: <please list the actual programme results from the programme monitoring and evaluation (M&E) framework (programmes, such as supply chain strengthening, health systems strengthening, immunization, diagnostics, essential medicines, etc.), or combination of them, that will benefit from this in-country logistics modality>.

SCOPE OF WORK AND DELIVERABLES

The service provider will be expected to run routine and emergency deliveries of medical commodities such as vaccines, medicines, diagnostic samples and other supplies to and from remote areas that are not well connected through regular transportation networks.

Please indicate which parts of the supply chain will be serviced (immunization, blood, emergency, diagnostics, routine, other).

Please indicate the list of possible commodities to be carried (vaccines, medicines, samples).

Please indicate the commodity packaging and storage specifications and requirements (ideally with pictures), and their cold-chain requirements.

Please provide a detailed list of facilities, with their GPS coordinates, that will need to be served.

Please indicate how those facilities are/will be connected to hubs (such as warehouse, district hospital, district lab) and how they will be connected using drones (what are the health commodity flows?).

Please indicate the expected flight routes and frequency of flights between different points.

Please indicate the minimum/maximum required weight of payload per flight.

Please indicate the minimum required distance of flight.

Please indicate the mode of drone transportation – one-way or bidirectional – that is required.

Please indicate preference for propulsion and power system, considering the availability of energy at different sites for recharging/refuelling (electric versus fuel)

Irrespective of the below service models, the drone transportation service provider will be required to fulfil the following mandatory responsibilities:

- » Ensure compliance with local drone regulation by obtaining necessary permits, completing all necessary procedures and providing timely information to the civil aviation authority (or equivalent)
- » Manage the entire equipment and materials importation process by liaising with appropriate authorities
- » Provide equipment (drones, ground station, communication, power/energy, and any other related) and staff for safe and successful drone delivery operations, and ensure the maintenance and repairs of the drone fleet
- » Provide necessary set-up for operations (at hub and at facility level)
- » Provide and manage flight planning process, complete approval requests and conduct communications with air traffic control or other relevant authority (entities that have a dedicated flight live-tracking online system will be viewed more favourably)
- » Possess valid third-party insurance for the duration of the services
- » Ensure appropriate safety and emergency procedures are in place to minimize any operational, environmental and other risks and provide the proof of comprehensive Beyond Visual Line of Sight (BVLOS) concept of operations (ConOps); take full responsibility for and manage emergency procedures, including incident reporting as per local regulatory requirements
- » Ensure appropriate operational backup (to ensure that there are backup drone[s] in all main locations – hubs)
- » Collect delivery data (flight, product and delivery information), document it and report on it monthly
- » Train relevant local staff (including health facility staff) to ensure consistent implementation of operations and safety procedures and ensure local capacity-building and sustainability
- » Offer continuous reporting of progress and activities to regulatory, health and contracting stakeholders. [Please provide the type/frequency of communications/reporting that is mandatory during the contractual period; e.g., bi-weekly task-force check-ins, monthly stakeholder update meetings, quarterly face-to-face meetings, or similar]

The selected firm will be expected to accomplish the following deliverables in line with one of the following two service models:

[remove service model that is not applicable from the below table]

Service model	Key activities/ deliverables	Example timeline
Carrier (transport only)	<p>1. Set-up phase</p> <ul style="list-style-type: none"> a. Successful completion of the regulatory processes and approvals, obtaining the BVLOS permit to conduct daily delivery flights, and obtaining approvals to carry dangerous goods (medical samples, etc.) b. Establishment of the drone transportation component of the supply chain to deliver health (or other) commodities as well as pick up medical samples between already existing hub (district hospital, district lab, etc.) and a secondary/tertiary health facility as a part of the existing supply chain c. Visit and scope out each facility to collect necessary data and information relevant for operations (landing sites, charging station placement, human resource allocation, etc.), as well as assist with community sensitization activities d. Provision of necessary equipment, operational set-up and training for the sender/recipient health centres to ensure the following: <ul style="list-style-type: none"> 1. efficient and safe recharging/refuelling of the drone platform 2. maintenance (as appropriate) 3. safe and successful landing of drones 4. unloading and loading the payload 5. communication with flight personnel 6. knowledge and practice of emergency procedures 7. any other relevant tasks e. Setting up equipment, staff and related components where needed (at hub and/or at health facility level) to support the drone delivery operations 	Month 1–2
	<p>2. Operations phase</p> <ul style="list-style-type: none"> 1. According to an agreed frequency (hourly, daily, weekly, etc.), provision of drone delivery operations to/from health facilities as a part of routine and emergency delivery and pick-up operations. Separate deliverables might be added to address emergency response activities. 2. Weekly/bi-weekly/monthly reporting of flight (number of flights, incidents, flight hours, total/max/average speed and distance flown), product (weight, volume, type, quantity/number of commodities flown, total/max/average payload weight and volume carried), demand (% of deliveries made in full and on time, based on the distribution plan and based on emergency requests) data. 3. Separate deliverables might be added to address emergency response activities 	Month 3 until the end of the contract

Service model	Key activities/ deliverables	Example timeline
Third-party logistics (3PL)	<p>1. Set-up phase</p> <ul style="list-style-type: none"> a. Successful completion of the regulatory processes and approvals, obtaining the BVLOS permit to conduct daily delivery flights, and obtaining approvals to carry dangerous goods (medical samples, etc.) b. Working closely with relevant staff and partners to establish all-in-one services: order management, inventory storage and management, transportation of supplies from central warehouses to the distribution/fulfilment centre, (re)packing, contract management, IT solutions, and, ultimately, shipping operations and distribution implemented by drones. c. Build/repurpose a distribution/fulfilment centre or a warehouse where all relevant commodities are kept, managed and distributed directly to target health facilities; equipping the centre with all necessary equipment and staff; setting up daily operations d. Visit and scope out each facility to collect necessary data and information for operations, as well as assist with community sensitization activities e. Equipping the distribution centre as well as health facilities with all necessary communication and information systems to fulfil the order and dispatch function 	Month 1–5
	<p>2. Operations phase</p> <ul style="list-style-type: none"> a. According to an agreed frequency (hourly, daily, weekly, etc.), provision of drone delivery operations to health facilities as a part of routine and emergency delivery operations b. Weekly/bi-weekly/monthly reporting of flight (number of flights, incidents, flight hours, total/max/average speed and distance flown), product (weight, volume, type, quantity/number of commodities flown, total/max/average payload weight and volume carried), demand (% of deliveries made in full and on time, based on the distribution plan and based on emergency requests) data c. Separate deliverables might be added to address emergency response activities 	Month 6 until end of contract

WORKING LOCATIONS

<Please list health facilities (subnational level, secondary or tertiary) that will be served as a part of the last-mile delivery network. These will define the working locations for the service provider>.

PROPOSED PAYMENT SCHEDULE:

Payment will be made upon satisfactory completion of services rendered, according to the agreed deliverables and activities, and made against the purchase order/contract.

No advance payment will be made on award of the contract. Payment will be made within <please indicate number of days> days after receiving the original invoice and after the organization has reviewed and certified outputs and deliverables.

CONTRACT

Please indicate the type of contract and provide general Terms and Conditions.

QUALIFICATIONS AND EXPERIENCE REQUIRED:

Organization is looking for an entity to provide last-mile drone delivery services. The entity will demonstrate the capacity to run sustained operations that deliver efficient, quality and timely technical services as described in the scope of work, and as outlined in the list of deliverables.

The vendor should have the following qualifications:

- » Proven experience in fulfilling regulatory requirements to obtain certificates to operate drones beyond visual line of sight
- » Ability to train its own staff, and personnel who possess remote pilot licence(s) from the local or other country's civil aviation authority
- » Proven experience in setting up scalable drone delivery operations in resource- constrained environments and running daily drone delivery operations for at least 2 months
- » Proven experience of setting up robust training programmes for its own staff and establishing standard operating procedures (SOPs) or other necessary protocols to ensure safe and efficient daily operation of delivery flights
- » Demonstrated experience in public health supply chain and health systems in general
- » Strong understanding and, preferably, experience of working in low-resource settings, including knowledge transfer and capacity-building backgrounds
- » Excellent project management, organizational skills, a professional approach to time and costs, ability to handle multiple tasks under tight deadlines
- » Initiative, sound judgment and ability to work in harmony with people from different national and cultural backgrounds
- » Proven ability to work in lean and agile ways
- » Ability to share any data relevant to the service performance and daily operations

Suggested specific personnel profiles might include (but are not limited to):

- » Project and Programme Manager
- » Chief of Flight Operations
- » Drone Pilot
- » Safety Officer
- » Logistician
- » Logistics Assistant
- » Pharmacist

STRUCTURE OF PROPOSAL AND MANDATORY DOCUMENT REQUIREMENTS

A. TECHNICAL PROPOSAL

Part 1: Cover letter including the following information:

1. Name of the company or organization
2. Type of company or organization
3. Address
4. Telephone
5. Email
6. Contact details of the point-of-contact company representative

Part 2: Proof of Operational Excellence. Companies that have a lower operational footprint (high level of automation, robustness and reliability; fewer labour and resources required on-site; low energy dependence, etc.) will be viewed more favourably, and priority will be given to companies that provide continuous telemetry communication, robust navigation and redundant power systems, ensuring the highest safety and reliability measures (collision avoidance, safe return-to-home and fail-safe features). The choice of a drone system will consider all potential connectivity, interference and weather limitations in low-resource settings.

The following documents, demonstrating the entity's operational technical capacity and capability to obtain necessary permits, must be added as part of the Annex to Part 2:

1. [UAV Specifications Matrix](#)
2. Sample Flight Logs report (.xls format)
3. Proof of BVLOS ConOps
4. Copy of the third-party liability insurance (or alternatively, must present a clear plan for obtaining it)

The following documents could be optionally added as a part of the Annex to Part 2, and will be considered to be an asset:

1. Copies of previous BVLOS flight operations permit(s)/waiver(s) from appropriate regulatory authorities (e.g., civil aviation authority)
2. Copy of previously conducted Specific Operations Risk Assessment (SORA)
3. Copy of previously completed certificate for the shipment of dangerous goods (hazardous materials)
4. Copy of Airworthiness Certificate

Part 3: Approach to the Scope of Work and Methodology. Methodology and approach to service requirements must provide details on how the offeror will meet or exceed [organization's](#) requirements for this assignment as per the Scope of Work and Anticipated Deliverables (no more than 15 pages long). References to experience in successfully fulfilling same or similar requirements in the past are very desirable. Offerors are welcome to propose innovative ideas in approaching the requirements, using their or industry-accepted approaches and methodologies.

Part 4: Management, Staffing and Workplan. This part will outline the vendor's managerial approach to the service provision, quality assurance, customer relations, project management, division of responsibilities, communication with stakeholders, and other relevant managerial components of the service provision, demonstrating management of multiple tasks and complex assignments at global, regional, country

and subnational levels. The workplan must show a detailed sequence and timeline for each activity and allocation of appropriate staff, material, non-material, and other resources to implement those activities. The section will also consider project dependencies, risks and assumptions. Part 4 will be no longer than 10 pages. As a part of the Annex to Part 4 (excluded from the 10 pages), the following documents must be provided:

1. Copies of remote pilot licences of relevant staff
2. Curriculum vitae (CVs) of key personnel, showing experience relevant for the scope of work and deliverables.

Part 5: Corporate Profile, Previous Experience and References. In this part, vendors will elaborate on their institutional experience in the area of drone delivery operations or logistics in general, particularly as they relate to the service areas outlined in these terms of reference (TOR) for which vendors are offering their services. The selected experiences should emphasize the focus, size and scope of past projects and their outcomes.

This part will include:

1. References to their experience, demonstrating their technical ability when implementing similar services in the past. They must include two (2) or more past activity references to similar work (under contracts or subcontracts), briefly describing the service provided and contact details of the client representative who can speak to their performance (company, name, position, email, phone number).
2. Description of the company and organization, referring to the relevant information to the scope of work as described in this TOR; any parent company and subsidiaries must also be listed
3. Copy of the company registration/incorporation
4. Recent financial audit report (report should have been carried out in the past two years and be certified by a reputable audit organization)

B. FINANCIAL PROPOSAL

Part 6. Financial Proposal. Financial proposals should include a one-time set-up phase fee, with a detailed breakdown of each cost category (equipment, engineering and pilot support, construction, shipping, transportation, travel, and other relevant cost category), and all-inclusive monthly drone delivery fee for the operations phase, taking into account the scope of work, number of facilities served, anticipated average number of daily flights, number of staff required and other operational requirements.

EVALUATION PROCESS AND AWARDS

Each proposal will be assessed first on its technical merits and subsequently on its price. In making the final decision, the purchasing organization will consider both technical and financial aspects. The Evaluation Team first reviews the technical aspects of the offer, followed by a review of the financial offers of technically compliant vendors. The proposal that obtains the highest overall score – after the scores for the technical and financial proposals have been added together – and which offers the best value for money will be recommended for award of the contract.

Proposals will be reviewed following a three-step process:

1. An initial administrative check for completeness and compliance
2. Technical evaluation (70 points, 70 per cent)
3. Financial evaluation (30 points, 30 per cent)

1. Administrative check

Proposals will first be reviewed for their completeness in terms of the information requested in the TOR and their compliance with its requirements. Only proposals

that successfully pass the administrative check will be subject to technical evaluation.

2. Technical evaluation (70 points)

Proposals will be reviewed against the criteria listed in the below table. Only those proposals that score 45 points and above will be considered technically compliant and will proceed to the financial evaluation.

Criteria	Description	Available subscore (just as an example)
Technical and Operational Capacity	Quality of the uncrewed aerial vehicle (UAV) platform based on the specifications matrix, considering the system's redundancy and reliability in terms of navigation, propulsion, communication, control and command, solid safety and flight track record, and the system's resistance to harsh weather	7
	Demonstrated capability to deliver more payload within longer range with longer endurance (payload capacity, cold chain [if relevant], distance, and operational requirements are met or exceeded)	7
	Low operational footprint (easy to set up, no extensive on-site equipment required, operation is not very labour intensive, high level of automation, technical solutions to reduce human failure, easy to maintain and repair, etc.)	5
	Completeness and quality of the BVLOS ConOps by demonstrating comprehensive flight planning, operation, communication, monitoring, risk mitigations, emergency and related SOPs	2
	Existence of real-time online flight tracking system (UAS traffic management [UTM], or similar flight monitoring system)	2
	Proof that flight operations or other listed permits have been obtained in the past: 1) copies of previous BVLOS flight operations permit(s)/waiver(s) from appropriate regulatory authorities (e.g., civil aviation authority); 2) copy of previously conducted SORA; 3) copy of previously completed certificate for the shipment of dangerous goods (hazardous materials); 4) copy of Airworthiness Certificate	2
Approach to the Scope of Work and Methodology	Proven ability to conduct continuous drone delivery operations for extended periods of time (2 months or more) and provision of appropriate backup measures	7
	Proven experience in low-resource settings, and low- and middle-income country environments	5
	Ability to up-skill local staff by demonstrating training plan, methodology and relevant previous experience	5
	Demonstrated ability to effectively manage the operational set-up, including necessary import permits, staff hiring, location scouting, stakeholder engagement, community sensitization, timely reporting	6

	Ability to work in lean and agile ways	2
Management, Staffing and Workplan	Completeness, appropriateness and relevance of the selection of staff, including title and role of each team member, meeting the criteria of scope of work and required qualifications	3
	Completion and relevance of CVs of each team member in relation to the required qualifications, scope of work and TOR	3
	Relevant staff have remote pilot licences, obtained from an appropriate regulatory authority	3
	Appropriate and acceptable project management plan outlining the approach to service provision, quality assurance, customer relations, division of responsibilities, communication with stakeholders	5
	Appropriate and acceptable workplan detailing the sequence and timeline for each activity and allocation of appropriate staff, material, non-material, and other resources to implement those activities	6
Corporate Profile, Previous Experience and References	Quality, relevance and appropriateness of the references (at least 2) of similar work (under contracts or subcontracts)	5
	Company background information relevance and appropriateness to the TOR and Scope of Work	5

3. Financial evaluation (30 points)

Bidders are expected to submit a one-time set-up fee, broken down into different cost categories, as well as the monthly operational fee required to provide services as outlined in the TOR. The financial evaluation of all technically compliant proposals will be conducted after technical evaluation. The set-up phase one-time fee as well as the monthly operational fee will be used in combination for the financial evaluation. The proposals will be ranked from lowest to highest, based on these costs.

SOLICITATION PROCESS TIMELINE

The calendar below summarizes important dates in the solicitation process. Applicants must strictly follow these deadlines.

Step in process	Date
Request for Proposal of Services (RFPS) published	
Deadline for written questions	
Responses to written questions issued	
Proposal due date	
Contract award (estimated)	

The dates above may be modified at the sole discretion of the organization. Any changes will be published in an amendment to this RFPS.

ENDORSEMENT OF TERMS OF REFERENCE

Function	Name	Signature	Date	Comment
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Submitted by

Reviewed by

Approved by
