

# **REQUEST FOR PROPOSAL**

**For Provision of Equipment and Services for National Meteorological  
and Hydrological Early Warning Systems**

**Global/Worldwide  
RFP/Ref/GP600187**



**United Nations Development Programme  
June, 2015**

# Section 1: Letter of Invitation

June 19, 2015

## **For Provision of Equipment and Services for National Meteorological and Hydrological Early Warning Systems UNDP PSO REF GP 600187**

Dear Mr./Ms.: *[indicate name]*

The United Nations Development Programme (UNDP) hereby invites you to submit a Proposal to this Request for Proposal (RFP) for the above-referenced subject.

This RFP includes the following documents:

- Section 1 – This Letter of Invitation
- Section 2 – Instructions to Proposers (including Data Sheet)
- Section 3 – Terms of Reference
- Section 4 – Proposal Submission Form
- Section 5 – Documents Establishing the Eligibility and Qualifications of the Proposer
- Section 6 – Evaluation Process and Evaluation Criteria
- Section 7 - Technical Proposal Form
- Section 8 – Financial Proposal Form
- Section 9 – Contract Template

Your offer, comprising of a Technical and Financial Proposal, in separate sealed envelopes, should be submitted in accordance with Section 2.

Please confirm your intention to bid by email to [Mettelena.herring@undp.org](mailto:Mettelena.herring@undp.org) and [joaquin.albiach@undp.org](mailto:joaquin.albiach@undp.org) no later than July 7th 2015.

UNDP looks forward to receiving your Proposal and thanks you in advance for your interest in UNDP procurement opportunities.

Yours sincerely,

Mettelena Herring  
Procurement Support Office, UNDP

If you have received this RFP through a direct invitation by UNDP, transferring this invitation to another firm requires your written notification to UNDP of such transfer and the name of the company to whom the invitation was forwarded.

Should you require further clarifications, kindly communicate with the contact person identified in the attached Data Sheet as the focal point for queries on this RFP.

UNDP looks forward to receiving your Proposal and thanks you in advance for your interest in UNDP procurement opportunities.

Yours sincerely,

*[insert: Signature, name, title of UNDP authorized*

*signatory]*

## Section 2: Instruction to Proposers<sup>1</sup>

### Definitions

- a) “*Contract*” refers to the agreement that will be signed by and between the UNDP and the successful proposer, all the attached documents thereto, including the General Terms and Conditions (GTC) and the Appendices.
- b) “*Country*” refers to the country indicated in the Data Sheet.
- c) “*Data Sheet*” refers to such part of the Instructions to Proposers used to reflect conditions of the tendering process that are specific for the requirements of the RFP.
- d) “*Day*” refers to calendar day.
- e) “*Government*” refers to the Government of the country that will be receiving the services provided/rendered specified under the Contract.
- f) “*Instructions to Proposers*” (Section 2 of the RFP) refers to the complete set of documents that provides Proposers with all information needed and procedures to be followed in the course of preparing their Proposals
- g) “*LOI*” (Section 1 of the RFP) refers to the Letter of Invitation sent by UNDP to Proposers.
- h) “*Material Deviation*” refers to any contents or characteristics of the proposal that is significantly different from an essential aspect or requirement of the RFP, and : (i) substantially alters the scope and quality of the requirements; (ii) limits the rights of UNDP and/or the obligations of the offeror; and (iii) adversely impacts the fairness and principles of the procurement process, such as those that compromise the competitive position of other offerors.
- i) “*Proposal*” refers to the Proposer’s response to the Request for Proposal, including the Proposal Submission Form, Technical and Financial Proposal and all other documentation attached thereto as required by the RFP.
- j) “*Proposer*” refers to any legal entity that may submit, or has submitted, a Proposal for the provision of services requested by UNDP through this RFP.
- k) “*RFP*” refers to the Request for Proposals consisting of instructions and references prepared by UNDP for purposes of selecting the best service provider to perform the services described in the Terms of Reference.
- l) “*Services*” refers to the entire scope of tasks and deliverables requested by UNDP under the RFP.

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<sup>1</sup> Note: this Section 2 - Instructions to Proposers shall not be modified in any way. Any necessary changes to address specific country and project information, shall be introduced only through the Data Sheet.

- m) *“Supplemental Information to the RFP”* refers to a written communication issued by UNDP to prospective Proposers containing clarifications, responses to queries received from prospective Proposers, or changes to be made in the RFP, at any time after the release of the RFP but before the deadline for the submission of Proposals.
- n) *“Terms of Reference”* (TOR) refers to the document included in this RFP as Section 3 which describes the objectives, scope of services, activities, tasks to be performed, respective responsibilities of the proposer, expected results and deliverables and other data pertinent to the performance of the range of duties and services expected of the successful proposer.

## **A. GENERAL**

1. UNDP hereby solicits Proposals in response to this Request for Proposal (RFP). Proposers must strictly adhere to all the requirements of this RFP. No changes, substitutions or other alterations to the rules and provisions stipulated in this RFP may be made or assumed unless it is instructed or approved in writing by UNDP in the form of Supplemental Information to the RFP.
2. Submission of a Proposal shall be deemed as an acknowledgement by the Proposer that all obligations stipulated by this RFP will be met and, unless specified otherwise, the Proposer has read, understood and agreed to all the instructions in this RFP.
3. Any Proposal submitted will be regarded as an offer by the Proposer and does not constitute or imply the acceptance of any Proposal by UNDP. UNDP is under no obligation to award a contract to any Proposer as a result of this RFP.
4. UNDP implements a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical practices, and obstruction. UNDP is committed to preventing, identifying and addressing all acts of fraud and corrupt practices against UNDP as well as third parties involved in UNDP activities. (See [http://www.undp.org/content/dam/undp/library/corporate/Transparency/UNDP\\_Anti\\_Fraud\\_Policy\\_English\\_FINAL\\_june\\_2011.pdf](http://www.undp.org/content/dam/undp/library/corporate/Transparency/UNDP_Anti_Fraud_Policy_English_FINAL_june_2011.pdf) and [http://www.undp.org/content/undp/en/home/operations/procurement/protestand\\_sanctions/](http://www.undp.org/content/undp/en/home/operations/procurement/protestand_sanctions/) for full description of the policies)
5. In responding to this RFP, UNDP requires all Proposers to conduct themselves in a professional, objective and impartial manner, and they must at all times hold UNDP's interests paramount. Proposers must strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. All Proposers found to have a conflict of interest shall be disqualified. Without limitation on the generality of the above, Proposers, and any of their affiliates, shall be considered to have a conflict of interest with one or more parties in this solicitation process, if they:
  - 5.1 Are or have been associated in the past, with a firm or any of its affiliates which have been engaged UNDP to provide services for the preparation of the design, specifications, Terms of Reference, cost analysis/estimation, and other documents to be used for the procurement of the goods and services in this selection process;

- 5.2 Were involved in the preparation and/or design of the programme/project related to the services requested under this RFP; or
- 5.3 Are found to be in conflict for any other reason, as may be established by, or at the discretion of, UNDP.

In the event of any uncertainty in the interpretation of what is potentially a conflict of interest, proposers must disclose the condition to UNDP and seek UNDP's confirmation on whether or not such conflict exists.

6. Similarly, the Proposers must disclose in their proposal their knowledge of the following :

- 6.1 That they are owners, part-owners, officers, directors, controlling shareholders, or they have key personnel who are family of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving services under this RFP; and
- 6.2 All other circumstances that could potentially lead to actual or perceived conflict of interest, collusion or unfair competition practices.

Failure of such disclosure may result in the rejection of the proposal or proposals affected by the non-disclosure.

7. The eligibility of Proposers that are wholly or partly owned by the Government shall be subject to UNDP's further evaluation and review of various factors such as being registered as an independent entity, the extent of Government ownership/share, receipt of subsidies, mandate, access to information in relation to this RFP, and others that may lead to undue advantage against other Proposers, and the eventual rejection of the Proposal.
8. All Proposers must adhere to the UNDP Supplier Code of Conduct, which may be found at this link: [http://www.un.org/depts/ptd/pdf/conduct\\_english.pdf](http://www.un.org/depts/ptd/pdf/conduct_english.pdf)

## **B. CONTENTS OF PROPOSAL**

### **9. Sections of Proposal**

Proposers are required to complete, sign and submit the following documents:

- 9.1 Proposal Submission Cover Letter Form (see RFP Section 4);
- 9.2 Documents Establishing the Eligibility and Qualifications of the Proposer (see RFP Section 5);
- 9.3 Technical Proposal (see prescribed form in RFP Section 6);
- 9.4 Financial Proposal (see prescribed form in RFP Section 7);
- 9.5 Proposal Security, if applicable (if required and as stated in the **Data Sheet** (DS nos. 9-11), see prescribed Form in RFP Section 8);
- 9.6 Any attachments and/or appendices to the Proposal.

### **10. Clarification of Proposal**

- 10.1 Proposers may request clarifications of any of the RFP documents no later

than the date indicated in the **Data Sheet** (DS no. 16) prior to the proposal submission date. Any request for clarification must be sent in writing via courier or through electronic means to the UNDP address indicated in the **Data Sheet** (DS no. 17). UNDP will respond in writing, transmitted by electronic means and will transmit copies of the response (including an explanation of the query but without identifying the source of inquiry) to all Proposers who have provided confirmation of their intention to submit a Proposal.

10.2 UNDP shall endeavor to provide such responses to clarifications in an expeditious manner, but any delay in such response shall not cause an obligation on the part of UNDP to extend the submission date of the Proposals, unless UNDP deems that such an extension is justified and necessary.

## **11. Amendment of Proposals**

11.1 At any time prior to the deadline of Proposal submission, UNDP may for any reason, such as in response to a clarification requested by a Proposer, modify the RFP in the form of a Supplemental Information to the RFP. All prospective Proposers will be notified in writing of all changes/amendments and additional instructions through Supplemental Information to the RFP and through the method specified in the **Data Sheet** (DS No. 18).

11.2 In order to afford prospective Proposers reasonable time to consider the amendments in preparing their Proposals, UNDP may, at its discretion, extend the deadline for submission of Proposals, if the nature of the amendment to the RFP justifies such an extension.

## **C. PREPARATION OF PROPOSALS**

### **12. Cost**

The Proposer shall bear any and all costs related to the preparation and/or submission of the Proposal, regardless of whether its Proposal was selected or not. UNDP shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the procurement process.

### **13. Language**

The Proposal, as well as any and all related correspondence exchanged by the Proposer and UNDP, shall be written in the language (s) specified in the **Data Sheet** (DS No 4). Any printed literature furnished by the Proposer written in a language other than the language indicated in the **Data Sheet**, must be accompanied by a translation in the preferred language indicated in the **Data Sheet**. For purposes of interpretation of the Proposal, and in the event of discrepancy or inconsistency in meaning, the version translated into the preferred language shall govern. Upon conclusion of a contract, the language of the contract shall govern the relationship between the contractor and UNDP.

#### 14. Proposal Submission Form

The Proposer shall submit the Proposal Submission Form using the form provided in Section 4 of this RFP.

#### 15. Technical Proposal Format and Content

Unless otherwise stated in the **Data Sheet** (DS no. 28), the Proposer shall structure the Technical Proposal as follows:

15.1 Expertise of Firm/Organization – this section should provide details regarding management structure of the organization, organizational capability/resources, and experience of organization/firm, the list of projects/contracts (both completed and on-going, both domestic and international) which are related or similar in nature to the requirements of the RFP, and proof of financial stability and adequacy of resources to complete the services required by the RFP (see RFP clause 18 and DS No. 26 for further details). The same shall apply to any other entity participating in the RFP as a Joint Venture or Consortium.

Management Structure and Key Personnel – This section should include the comprehensive curriculum vitae (CVs) of key personnel that will be assigned to support the implementation of the proposed methodology, clearly defining the roles and responsibilities vis-à-vis the proposed methodology. CVs should establish competence and demonstrate qualifications in areas relevant to the TOR.

In complying with this section, the Proposer assures and confirms to UNDP that the personnel being nominated are available for the Contract on the dates proposed. If any of the key personnel later becomes unavailable, except for unavoidable reasons such as death or medical incapacity, among other possibilities, UNDP reserves the right to consider the proposal non-responsive. Any deliberate substitution arising from unavoidable reasons, including delay in the implementation of the project of programme through no fault of the Proposer shall be made only with UNDP's acceptance of the justification for substitution, and UNDP's approval of the qualification of the replacement who shall be either of equal or superior credentials as the one being replaced.

15.2 Proposed Methodology, Approach and Implementation Plan – this section should demonstrate the Proposer's response to the Terms of Reference by identifying the specific components proposed, how the requirements shall be addressed, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; identifying the works/portions of the work that will be subcontracted; and demonstrating how the proposed methodology meets or exceeds the specifications, while ensuring appropriateness of the approach to the local conditions and the rest of the project operating environment. This methodology must be laid out in an implementation timetable that is within the duration of the contract as specified in the **Data Sheet** (DS nos. 29 and 30).

Proposers must be fully aware that the products or services that UNDP

requires may be transferred, immediately or eventually, by UNDP to the Government partners, or to an entity nominated by the latter, in accordance with UNDP's policies and procedures. All proposers are therefore required to submit the following in their proposals:

- a) A statement of whether any import or export licences are required in respect of the goods to be purchased or services to be rendered, including any restrictions in the country of origin, use or dual use nature of the goods or services, including any disposition to end users; and Confirmation that the Proposer has obtained license of this nature in the past, and have an expectation of obtaining all the necessary licenses, should their Proposal be rendered the most responsive

15.3 Where the **Data Sheet** requires the submission of the Proposal Security, the Proposal Security shall be included along with the Technical Proposal. The Proposal Security may be forfeited by UNDP, and reject the Proposal, in the event of any or any combination of the following conditions:

- a) If the Proposer withdraws its offer during the period of the Proposal Validity specified in the **Data Sheet** (DS no. 11), or;
- b) If the Proposal Security amount is found to be less than what is required by UNDP as indicated in the **Data Sheet** (DS no. 9), or;
- c) In the case the successful Proposer fails:
  - i. to sign the Contract after UNDP has awarded it;
  - ii. to comply with UNDP's variation of requirement, as per RFP clause 35; or
  - iii. to furnish Performance Security, insurances, or other documents that UNDP may require as a condition to rendering the effectivity of the contract that may be awarded to the Proposer.

## 16. Financial Proposals

The Financial Proposal shall be prepared using the attached standard form (Section 7). It shall list all major cost components associated with the services, and the detailed breakdown of such costs. All outputs and activities described in the Technical Proposal must be priced separately on a one-to-one correspondence. Any output and activities described in the Technical Proposal but not priced in the Financial Proposal, shall be assumed to be included in the prices of other activities or items, as well as in the final total price.

## 17. Currencies

All prices shall be quoted in the currency indicated in the **Data Sheet** (DS no. 15). However, where Proposals are quoted in different currencies, for the purposes of comparison of all Proposals:

- a) UNDP will convert the currency quoted in the Proposal into the UNDP preferred currency, in accordance with the prevailing UN operational rate of exchange on the last day of submission of Proposals; and
- b) In the event that the proposal found to be the most responsive to the RFP

requirement is quoted in another currency different from the preferred currency as per **Data Sheet** (DS no. 15), then UNDP shall reserve the right to award the contract in the currency of UNDP's preference, using the conversion method specified above.

Proposals submitted by two (2) or more Proposers shall all be rejected if they are found to have any of the following :

- a) they have at least one controlling partner, director or shareholder in common;  
or
- b) any one of them receive or have received any direct or indirect subsidy from the other/s; or
- c) they have the same legal representative for purposes of this RFP; or
- d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about, or influence on the Proposal of, another Proposer regarding this RFP process;
- e) they are subcontractors to each other's Proposal, or a subcontractor to one Proposal also submits another Proposal under its name as lead Proposer; or
- f) an expert proposed to be in the team of one Proposer participates in more than one Proposal received for this RFP process. This condition does not apply to subcontractors being included in more than one Proposal.

#### **18. Documents Establishing the Eligibility and Qualifications of the Proposer**

The Proposer shall furnish documentary evidence of its status as an eligible and qualified vendor, using the forms provided under Section 5, Proposer Information Forms. In order to award a contract to a Proposer, its qualifications must be documented to UNDP's satisfaction. These include, but are not limited to, the following:

- a) That, in the case of a Proposer offering to supply goods under the Contract which the Proposer did not manufacture or otherwise produce, the Proposer has been duly authorized by the goods' manufacturer or producer to supply the goods in the country of final destination;
- b) That the Proposer has the financial, technical, and production capability necessary to perform the Contract; and
- c) That, to the best of the Proposer's knowledge, it is not included in the UN 1267/1989 List or the UN Ineligibility List, nor in any and all of UNDP's list of suspended and removed vendors.

#### **19. Joint Venture, Consortium or Association**

If the Proposer is a group of legal entities that will form or have formed a joint venture, consortium or association at the time of the submission of the Proposal, they shall confirm in their Proposal that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the joint venture jointly and severally, and this shall be duly evidenced by a duly notarized Agreement among the legal entities, which shall be submitted along with the Proposal; and (ii) if they are awarded the contract, the contract shall be entered into, by and between UNDP and the designated lead entity, who shall be acting for and on behalf of all the member entities comprising the joint venture.

After the Proposal has been submitted to UNDP, the lead entity identified to represent the joint venture shall not be altered without the prior written consent of UNDP. Furthermore, neither the lead entity nor the member entities of the joint venture can:

- a) Submit another proposal, either in its own capacity; nor
- b) As a lead entity or a member entity for another joint venture submitting another Proposal.

The description of the organization of the joint venture/consortium/association must clearly define the expected role of each of the entity in the joint venture in delivering the requirements of the RFP, both in the Proposal and the Joint Venture Agreement. All entities that comprise the joint venture shall be subject to the eligibility and qualification assessment by UNDP.

Where a joint venture is presenting its track record and experience in a similar undertaking as those required in the RFP, it should present such information in the following manner:

- a) Those that were undertaken together by the joint venture; and
- b) Those that were undertaken by the individual entities of the joint venture expected to be involved in the performance of the services defined in the RFP.

Previous contracts completed by individual experts working privately but who are permanently or were temporarily associated with any of the member firms cannot be claimed as the experience of the joint venture or those of its members, but should only be claimed by the individual experts themselves in their presentation of their individual credentials.

If a joint venture's Proposal is determined by UNDP as the most responsive Proposal that offers the best value for money, UNDP shall award the contract to the joint venture, in the name of its designated lead entity. The lead entity shall sign the contract for and on behalf of all other member entities.

## **20. Alternative Proposals**

Unless otherwise specified in the **Data Sheet** (DS nos. 5 and 6), alternative proposals shall not be considered. Where the conditions for its acceptance are met, or justifications are clearly established, UNDP reserves the right to award a contract based on an alternative proposal.

## **21. Validity Period**

Proposals shall remain valid for the period specified in the **Data Sheet** (DS no. 8), commencing on the submission deadline date also indicated in the **Data Sheet** (DS no. 21). A Proposal valid for a shorter period shall be immediately rejected by UNDP and rendered non-responsive.

In exceptional circumstances, prior to the expiration of the proposal validity period,

UNDP may request Proposers to extend the period of validity of their Proposals. The request and the responses shall be made in writing, and shall be considered integral to the Proposal.

## 22. Proposer's Conference

When appropriate, a proposer's conference will be conducted at the date, time and location specified in the **Data Sheet** (DS no. 7). All Proposers are encouraged to attend. Non-attendance, however, shall not result in disqualification of an interested Proposer. Minutes of the proposer's conference will be either posted on the UNDP website, or disseminated to the individual firms who have registered or expressed interest with the contract, whether or not they attended the conference. No verbal statement made during the conference shall modify the terms and conditions of the RFP unless such statement is specifically written in the Minutes of the Conference, or issued/posted as an amendment in the form of a Supplemental Information to the RFP.

## D. SUBMISSION AND OPENING OF PROPOSALS

### 23. Submission

- 23.1 The Financial Proposal and the Technical Proposal Envelopes MUST BE COMPLETELY SEPARATE and each of them must be submitted sealed individually and clearly marked on the outside as either "TECHNICAL PROPOSAL" or "FINANCIAL PROPOSAL", as appropriate. Each envelope MUST clearly indicate the name of the Proposer. The outer envelopes shall bear the address of UNDP as specified in the **Data Sheet** (DS no.20) and shall include the Proposer's name and address, as well as a warning that state "*not to be opened before the time and date for proposal opening*" as specified in the **Data Sheet** (DS no. 24). The Proposer shall assume the responsibility for the misplacement or premature opening of Proposals due to improper sealing and labeling by the Proposer.
- 23.2 Proposers must submit their Proposals in the manner specified in the **Data Sheet** (DS nos. 22 and 23). When the Proposals are expected to be in transit for more than 24 hours, the Proposer must ensure that sufficient lead time has been provided in order to comply with UNDP's deadline for submission. UNDP shall indicate for its record that the official date and time of receiving the Proposal is the actual date and time when the said Proposal has physically arrived at the UNDP premises indicated in the **Data Sheet** (DS no. 20).
- 23.3 Proposers submitting Proposals by mail or by hand shall enclose the original and each copy of the Proposal, in separate sealed envelopes, duly marking each of the envelopes as "Original Proposal" and "Copy of Proposal" as appropriate. The 2 envelopes shall then be sealed in an outer envelope. The number of copies required shall be as specified in the **Data Sheet** (DS No. 19). In the event of any discrepancy between the contents of the "Original Proposal" and the "Copy of Proposal", the contents of the original shall govern. The original version of the Proposal shall be signed or initialed by the Proposer or person(s) duly authorized to commit the Proposer on every page.

The authorization shall be communicated through a document evidencing such authorization issued by the highest official of the firm, or a Power of Attorney, accompanying the Proposal.

- 23.4 Proposers must be aware that the mere act of submission of a Proposal, in and of itself, implies that the Proposer accepts the General Contract Terms and Conditions of UNDP as attached hereto as Section 11.

#### **24. Deadline for Submission of Proposals and Late Proposals**

Proposals must be received by UNDP at the address and no later than the date and time specified in the **Data Sheet** (DS nos. 20 and 21).

UNDP shall not consider any Proposal that arrives after the deadline for submission of Proposals. Any Proposal received by UNDP after the deadline for submission of Proposals shall be declared late, rejected, and returned unopened to the Proposer.

#### **25. Withdrawal, Substitution, and Modification of Proposals**

- 25.1 Proposers are expected to have sole responsibility for taking steps to carefully examine in detail the full consistency of its Proposals to the requirements of the RFP, keeping in mind that material deficiencies in providing information requested by UNDP, or lack clarity in the description of services to be provided, may result in the rejection of the Proposal. The Proposer shall assume the responsibility regarding erroneous interpretations or conclusions made by the Proposer in the course of understanding the RFP out of the set of information furnished by UNDP.
- 25.2 A Proposer may withdraw, substitute or modify its Proposal after it has been submitted by sending a written notice in accordance with Clause 23.1, duly signed by an authorized representative, and shall include a copy of the authorization (or a Power of Attorney). The corresponding substitution or modification of the Proposal must accompany the respective written notice. All notices must be received by UNDP prior to the deadline for submission and submitted in accordance with RFP Clause 23.1 (except that withdrawal notices do not require copies). The respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," or "MODIFICATION".
- 25.3 Proposals requested to be withdrawn shall be returned unopened to the Proposers.
- 25.4 No Proposal may be withdrawn, substituted, or modified in the interval between the deadline for submission of Proposals and the expiration of the period of proposal validity specified by the Proposer on the Proposal Submission Form or any extension thereof.

#### **26. Proposal Opening**

UNDP will open the Proposals in the presence of an ad-hoc committee formed by UNDP of at least two (2) members. If electronic submission is permitted, any specific electronic proposal opening procedures shall be as specified in the **Data**

**Sheet** (DS no. 23).

The Proposers' names, modifications, withdrawals, the condition of the envelope labels/seals, the number of folders/files and all other such other details as UNDP may consider appropriate, will be announced at the opening. No Proposal shall be rejected at the opening stage, except for late submission, for which the Proposal shall be returned unopened to the Proposer.

## **27. Confidentiality**

Information relating to the examination, evaluation, and comparison of Proposals, and the recommendation of contract award, shall not be disclosed to Proposers or any other persons not officially concerned with such process, even after publication of the contract award.

Any effort by a Proposer to influence UNDP in the examination, evaluation and comparison of the Proposals or contract award decisions may, at UNDP's decision, result in the rejection of its Proposal.

In the event that a Proposer is unsuccessful, the Proposer may seek a meeting with UNDP for a debriefing. The purpose of the debriefing is discussing the strengths and weaknesses of the Proposer's submission, in order to assist the Proposer in improving the proposals presented to UNDP. The content of other proposals and how they compare to the Proposer's submission shall not be discussed.

## **E. EVALUATION OF PROPOSALS**

### **28. Preliminary Examination of Proposals**

UNDP shall examine the Proposals to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, whether or not the Proposer is in the UN Security Council 1267/1989 Committee's list of terrorists and terrorist financiers, and in UNDP's list of suspended and removed vendors, and whether the Proposals are generally in order, among other indicators that may be used at this stage. UNDP may reject any Proposal at this stage.

### **29. Evaluation of Proposals**

29.1 UNDP shall examine the Proposal to confirm that all terms and conditions under the UNDP General Terms and Conditions and Special Conditions have been accepted by the Proposer without any deviation or reservation.

29.2 The evaluation team shall review and evaluate the Technical Proposals on the basis of their responsiveness to the Terms of Reference and other documentation provided, applying the evaluation criteria, sub-criteria, and point system specified in the **Data Sheet** (DS no. 32). Each responsive Proposal will be given a technical score. A Proposal shall be rendered non-responsive at this stage if it does not substantially respond to the RFP particularly the demands of the Terms of Reference, which also means that it fails to achieve

the minimum technical score indicated in the **Data Sheet** (DS no. 25). Absolutely no changes may be made by UNDP in the criteria, sub-criteria and point system indicated in the **Data Sheet** (DS no. 32) after all Proposals have been received.

29.3 In the second stage, only the Financial Proposals of those Proposers who achieve the minimum technical score will be opened for evaluation for comparison and review. The Financial Proposal Envelopes corresponding to Proposals that did not meet the minimum passing technical score shall be returned to the Proposer unopened. The overall evaluation score will be based either on a combination of the technical score and the financial offer, or the lowest evaluated financial proposal of the technically qualified Proposers. The evaluation method that applies for this RFP shall be as indicated in the **Data Sheet** (DS No. 25).

When the Data Sheet specifies a combined scoring method, the formula for the rating of the Proposals will be as follows:

<p><u>Rating the Technical Proposal (TP):</u></p> $\text{TP Rating} = (\text{Total Score Obtained by the Offer} / \text{Max. Obtainable Score for TP}) \times 100$ <p><u>Rating the Financial Proposal (FP):</u></p> $\text{FP Rating} = (\text{Lowest Priced Offer} / \text{Price of the Offer Being Reviewed}) \times 100$ <p><u>Total Combined Score:</u></p> $\frac{(\text{TP Rating}) \times (\text{Weight of TP, e.g. 70\%}) + (\text{FP Rating}) \times (\text{Weight of FP, e.g., 30\%})}{\text{Total Combined and Final Rating of the Proposal}}$
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29.4 UNDP reserves the right to undertake a post-qualification exercise aimed at determining, to its satisfaction the validity of the information provided by the Proposer. Such post-qualification shall be fully documented and, among those that may be listed in the **Data Sheet** (DS No.33), may include, but need not be limited to, all or any combination of the following :

- a) Verification of accuracy, correctness and authenticity of information provided by the Proposer on the legal, technical and financial documents submitted;
- b) Validation of extent of compliance to the RFP requirements and evaluation criteria based on what has so far been found by the evaluation team;
- c) Inquiry and reference checking with Government entities with jurisdiction on the Proposer, or any other entity that may have done business with the Proposer;
- d) Inquiry and reference checking with other previous clients on the quality of

- performance on ongoing or previous contracts completed;
- e) Physical inspection of the Proposer's offices, branches or other places where business transpires, with or without notice to the Proposer;
- f) Quality assessment of ongoing and completed outputs, works and activities similar to the requirements of UNDP, where available; and
- g) Other means that UNDP may deem appropriate, at any stage within the selection process, prior to awarding the contract.

### **30. Clarification of Proposals**

To assist in the examination, evaluation and comparison of Proposals, UNDP may, at its discretion, ask any Proposer for a clarification of its Proposal.

UNDP's request for clarification and the response shall be in writing. Notwithstanding the written communication, no change in the prices or substance of the Proposal shall be sought, offered, or permitted, except to provide clarification, and confirm the correction of any arithmetic errors discovered by UNDP in the evaluation of the Proposals, in accordance with RFP Clause 32.

Any unsolicited clarification submitted by a Proposer in respect to its Proposal, which is not a response to a request by UNDP, shall not be considered during the review and evaluation of the Proposals.

### **31. Responsiveness of Proposal**

UNDP's determination of a Proposal's responsiveness will be based on the contents of the Proposal itself.

A substantially responsive Proposal is one that conforms to all the terms, conditions, TOR and other requirements of the RFP without material deviation, reservation, or omission.

If a Proposal is not substantially responsive, it shall be rejected by UNDP and may not subsequently be made responsive by the Proposer by correction of the material deviation, reservation, or omission.

### **32. Nonconformities, Reparable Errors and Omissions**

Provided that a Proposal is substantially responsive, UNDP may waive any non-conformities or omissions in the Proposal that, in the opinion of UNDP, do not constitute a material deviation.

Provided that a Proposal is substantially responsive, UNDP may request the Proposer to submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Proposal related to documentation requirements. Such omission shall not be related to any aspect of the price of the Proposal. Failure of the Proposer to comply with the request may result in the rejection of its Proposal.

Provided that the Proposal is substantially responsive, UNDP shall correct arithmetical errors as follows:

- a) if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of UNDP there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;
- b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to the above.

If the Proposer does not accept the correction of errors made by UNDP, its Proposal shall be rejected.

## **F. AWARD OF CONTRACT**

### **33. Right to Accept, Reject, or Render Non-Responsive Any or All Proposals**

UNDP reserves the right to accept or reject any Proposal, to render any or all of the Proposals as non-responsive, and to reject all Proposals at any time prior to award of contract, without incurring any liability, or obligation to inform the affected Proposer(s) of the grounds for UNDP's action. Furthermore, UNDP shall not be obliged to award the contract to the lowest price offer.

UNDP shall also verify, and immediately reject their respective Proposal, if the Proposers are found to appear in the UN's Consolidated List of Individuals and Entities with Association to Terrorist Organizations, in the List of Vendors Suspended or Removed from the UN Secretariat Procurement Division Vendor Roster, the UN Ineligibility List, and other such lists that as may be established or recognized by UNDP policy on Vendor Sanctions. (See [http://www.undp.org/content/undp/en/home/operations/procurement/protestand\\_sanctions/](http://www.undp.org/content/undp/en/home/operations/procurement/protestand_sanctions/) for details)

### **34. Award Criteria**

Prior to expiration of the period of proposal validity, UNDP shall award the contract to the qualified Proposer with the highest total score based on the evaluation method indicated in the **Data Sheet** (DS nos. 25 and 32).

### **35. Right to Vary Requirements at the Time of Award**

At the time of award of Contract, UNDP reserves the right to vary the quantity of services and/or goods, by up to a maximum twenty five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

### **36. Contract Signature**

Within fifteen (15) days from the date of receipt of the Contract, the successful Proposer shall sign and date the Contract and return it to UNDP.

Failure of the successful Proposer to comply with the requirement of RFP Clause 35 and this provision shall constitute sufficient grounds for the annulment of the award, and forfeiture of the Proposal Security if any, and on which event, UNDP may award the Contract to the Proposer with the second highest rated Proposal, or call for new Proposals.

### **37. Performance Security**

A performance security, if required, shall be provided in the amount and form provided in Section 9 and by the deadline indicated in the **Data Sheet** (DS no. 14), as applicable. Where a Performance Security will be required, the submission of the said document, and the confirmation of its acceptance by UNDP, shall be a condition for the effectivity of the Contract that will be signed by and between the successful Proposer and UNDP.

### **38. Bank Guarantee for Advanced Payment**

Except when the interests of UNDP so require, it is the UNDP's preference to make no advanced payment(s) on contracts (i.e., payments without having received any outputs). In the event that the Proposer requires an advanced payment upon contract signature, and if such request is duly accepted by UNDP, and the said advanced payment exceeds 20% of the total proposal price, or exceed the amount of USD 30,000, UNDP shall require the Proposer to submit a Bank Guarantee in the same amount as the advanced payment. A bank guarantee for advanced payment shall be furnished in the form provided in Section 10.

### **39. Vendor Protest**

UNDP's vendor protest procedure provides an opportunity for appeal to those persons or firms not awarded a purchase order or contract through a competitive procurement process. In the event that a Proposer believes that it was not treated fairly, the following link provides further details regarding UNDP vendor protest procedures:

<http://www.undp.org/content/undp/en/home/operations/procurement/protestandactions/>

## DATA SHEET

The following data for the services to be procured shall complement, supplement, or amend the provisions in the Instruction to Proposers. In the case of a conflict between the Instructions to Proposers, the Data Sheet, and other annexes or references attached to the Data Sheet, the provisions in the Data Sheet shall govern.

DS No. <sup>2</sup>	Cross Ref. to Instructions	Data	Specific Instructions / Requirements
1		Project Title :	<b>GP 600187: Provision of Equipment and Services for National Meteorological and Hydrological Early Warning Systems</b>
2		Title of Services/Work:	See above
3		Country / Region of Work Location:	Global
4	C.13	Language of the Proposal:	<input checked="" type="checkbox"/> English
5	C.20	Conditions for Submitting Proposals for Parts or sub-parts of the TOR	<input checked="" type="checkbox"/> Not allowed
6	C.20	Conditions for Submitting Alternative Proposals	X Shall be considered. A proposer may submit an alternative proposal, but only if it also submits a proposal that meets the base case. UNDP shall only consider the alternative proposals offered by the Proposer whose proposal for the base case was determined to be the proposal with the highest evaluated score.
7	C.22	A pre-proposal conference will be held on:	N/A
8	C.21	Period of Proposal Validity commencing on the submission date	<input checked="" type="checkbox"/> 120 days
9	B.9.5 C.15.4 b)	Proposal Security	N/A

<sup>2</sup> All DS number entries in the Data Sheet are cited as reference in the Instructions to Proposers. All DS nos. corresponding to a Data must not be modified. Only information on the 3<sup>rd</sup> column may be modified by the user. If the information does not apply, the 3<sup>rd</sup> column must state "N/A" but must not be deleted.

10	B.9.5	Acceptable forms of Proposal Security <sup>3</sup>	N/A
11	B.9.5 C.15.4 a)	Validity of Proposal Security	N/A
12		Advanced Payment upon signing of contract	N/A
13		Liquidated Damages	N/A
14	F.37	Performance Security	N/A
15	C.17, C.17 b)	Preferred Currency of Proposal and Method for Currency conversion	<input checked="" type="checkbox"/> United States Dollars (US\$) <input checked="" type="checkbox"/> Euro
16	B.10.1	Deadline for submitting requests for clarifications/questions	7 days before the submission date.
17	B.10.1	Contact Details for submitting clarifications/questions <sup>4</sup>	Mettelena Herring (Mettelena.herring@undp.org) and Joaquin Albiach (joaquin.albiach@undp.org)
18	B.11.1	Manner of Disseminating Supplemental Information to the RFP and responses/clarifications to queries	<input checked="" type="checkbox"/> Direct communication to prospective Proposers by email, and Posting on the website <sup>5</sup> <a href="http://procurement-notices.undp.org/">http://procurement-notices.undp.org/</a>
19	D.23.3	No. of copies of Proposal that must be submitted [if transmitted by courier]	Original : 1 Copies : 1
20	D.23.1 D.23.2 D.24	Proposal Submission Address	United Nations Development Programme UNDP, 4th floor Att. Procurement Support Office Bid / Tender Unit Marmorvej 51, 2100 Copenhagen Ø, Denmark

<sup>3</sup> Surety bonds or other instruments issued by non-bank Financial Institutions are least preferred by UNDP. Unless stated otherwise, they shall be considered unacceptable to UNDP.

<sup>4</sup> This contact person and address is officially designated by UNDP. If inquiries are sent to other person/s or address/es, even if they are UNDP staff, UNDP shall have no obligation to respond nor can UNDP confirm that the query was officially received.

<sup>5</sup> Posting on the website shall be supplemented by directly transmitting the communication to the prospective offerors.

			The outer envelop should indicate the reference and the title as below: RFP/LTA/GP600187 For Provision of Equipment and Services for National Meteorological and Hydrological Early Warning Systems
21	C.21 D.24	Deadline of Submission	<b>July 17, 2015. 17:00 CET (Copenhagen time).</b>
22	D.23.2	Allowable Manner of Submitting Proposals	<input checked="" type="checkbox"/> Courier/Hand Delivery <input checked="" type="checkbox"/> Electronic submission of Bid <sup>6</sup>
23	D.23.2 D.26	Conditions and Procedures for electronic submission and opening, if allowed	Official Address for e-submission: pso.bidtender@undp.org Free from virus and corrupted files Format : PDF files only Two separate pdf files shall be transmitted, one containing the technical proposal and the other one the financial proposal. Max. File Size per transmission: max. 4.5 MB per email message with no limits on number of messages Mandatory subject of email: RFP/LTA/GP600187
24	D.23.1	Date, time and venue for opening of Proposals	There will be no public opening of the proposals.
25	E.29.2 E.29.3 F.34	Evaluation method to be used in selecting the most responsive Proposal	<input checked="" type="checkbox"/> <b>Combined Scoring Method, with mandatory requirements, using the 70%-30% distribution for technical and financial proposals, respectively, where the minimum passing score of technical proposal is 70% (490 points of 700 points)</b>
26	C.15.1	Required Documents that must be Submitted to Establish Qualification of Proposers (In "Certified True Copy" form only)	<input checked="" type="checkbox"/> Company Profile, which should <u>not</u> exceed fifteen (15) pages, including printed brochures and product catalogues relevant to the goods/services being procured (. Please refer to section 5, point 8) <input checked="" type="checkbox"/> Certificate of Registration of the business, including Articles of Incorporation, or equivalent document if Bidder is not a corporation (please refer to section 5, point 9) <input checked="" type="checkbox"/> Quality Certificate (e.g., ISO, etc.) and/or other similar certificates, accreditations, awards and citations received by the Bidder for their company (not goods), if any (please refer to section 5, point 10) <input checked="" type="checkbox"/> Environmental Compliance Certificates, Accreditations, Markings/Labels, and other evidences of the Bidder's practices which contributes to the ecological sustainability and reduction of adverse environmental impact (e.g., use of non-toxic substances, recycled raw materials, energy-

<sup>6</sup> If this will be allowed, security features (e.g., encryption, authentication, digital signatures, etc.) are strictly required and must be enforced to ensure confidentiality and integrity of contents.

			<p>efficient equipment, reduced carbon emission, etc.), either in its business practices or in the goods it manufactures (please refer to section 5, point 11)</p> <p><input checked="" type="checkbox"/> Plan and details of manufacturing capacity, if Bidder is a manufacturer of the goods to be supplied (please refer to section 5, point 12)</p> <p><input checked="" type="checkbox"/> <b><u>Certification or authorization to act as Agent in behalf of the Manufacturer</u></b>, or Power of Attorney, if bidder is not a manufacturer (please refer to section 5, point 13)</p> <p><input checked="" type="checkbox"/> <b><u>Financial soundness:</u></b> Bidders shall provide documentary evidence, preferably in the form of latest available audited financial accounts proving that the total average annual turnover over each of the last two years exceeded the amount of U\$ 500,000. (Please refer to section 5, point 14).</p> <p><input checked="" type="checkbox"/> <b><u>Previous experience:</u></b> Documentary evidence of a minimum of <b>3 purchase orders / contracts</b> awarded and served <b><u>within the past 3 years</u></b> proving relevant <b><u>international experience</u></b> in supplying the items/services offered in response to this RFP and/or items of similar nature and purpose.  <b>At least one of the purchase orders / contracts shall be of an amount above U\$ 100,000.</b></p> <p>Each purchase order / contract shall clearly indicate the type and quantities of items and technical specifications, contract amount, date, and customer's current contact details for references to be sought. (Please refer to section 5, point 15)</p> <p><input checked="" type="checkbox"/> Statement of Satisfactory Performance from 3 relevant Clients in supplying the items/services offered in response to this RFP and/or items of similar nature and purpose (please refer to section 5, point 16).</p>
27		Other documents that may be Submitted to Establish Eligibility	<p><input checked="" type="checkbox"/> Confirmation of non-inclusion of the bidder in the in UN's Consolidated List of Individuals and Entities with Association to Terrorist Organizations, in the List of Vendors Suspended or Removed from the UN Secretariat Procurement Division Vendor Roster, the UN Ineligibility List and in the list of vendors sanctioned by UNDP</p>
28	C.15	Structure of the Technical Proposal ( <i>only if different from the provision of Section 7</i> )	N/A
29	C.15.2	Latest Expected date for commencement of Contract	<i>August 20, 2015</i>
30	C.15.2	Expected duration of contract (Target Commencement Date and Completion Date)	3 years.

31		UNDP will award the contract to:	One or more Proposers, depending on the following factors : - Highest scoring offerors based on scoring method in DS 25.
32	E.29.2 F.34	Criteria for Evaluation of Proposals and the Award of Contract	<p>A mandatory technical compliance (pass/fail) evaluation will be conducted (following the preliminary qualifying evaluation).</p> <p>ONLY bidders who pass the mandatory technical requirements will be considered for the technical scoring process.</p> <p>Offerors will have to score a minimum of 490/700 points (70%) in order to be considered for financial evaluation.</p> <p>For the financial evaluation, all items' pricing will be evaluated based on a case scenario of 30 AWSs and 9 LDNs delivered to Zambia, and prices will be factored as per tables in Section 7: Price Schedule Form in order to consider applicable quantity/volume price reductions / discounts.</p> <p>In principle, UNDP intends to award Long Term Agreements to the highest scoring offerors (using the combined scoring method as stipulated in DS 25).</p> <p>It is envisaged that LTAs will be awarded to the top 2 scoring offerors, however UNDP reserves the right to award to more than 2 offerors.</p>
33	E.29.4	Post-Qualification Actions	<input checked="" type="checkbox"/> Verification of accuracy, correctness and authenticity of the information provided by the bidder on the legal, technical and financial documents submitted; <input checked="" type="checkbox"/> Validation of extent of compliance to the RFP requirements and evaluation criteria based on what has so far been found by the evaluation team; <input checked="" type="checkbox"/> Inquiry and reference checking with Government entities with jurisdiction on the bidder, or any other entity that may have done business with the bidder; <input checked="" type="checkbox"/> Inquiry and reference checking with other previous clients on the quality of performance on ongoing or previous contracts completed; <input type="checkbox"/> Physical inspection of the bidder's plant, factory, branches or other places where business transpires, with or without notice to the bidder; <input checked="" type="checkbox"/> Testing and sampling of completed goods similar to the requirements of UNDP, where available; and <input type="checkbox"/> Others
34		Conditions for Determining Contract Effectivity	n/a

Summary of Technical Proposal Evaluation Forms for the Services Component of this RFP		Score Weight	Points Obtainable
1.	Expertise of Firm/ Organization including management structure and personnel	20%	140
2.	Proposed Methodology, Approach and Implementation Plan, including Technical Compliance with Equipment Specifications	80%	560
<b>Total</b>		<b>100%</b>	<b>700</b>

Technical Proposal Evaluation Form 1		Points obtainable
<b>Expertise of the Firm/Organization</b>		
1.1	Reputation of Organization and Staff / Credibility / Reliability / Industry Standing	30
1.2	General Organizational Capability which is likely to affect implementation <ul style="list-style-type: none"> <li>- Financial stability</li> <li>- loose consortium, holding company or one firm</li> <li>- age/size of the firm</li> <li>- strength of project management support</li> <li>- project financing capacity</li> <li>- project management controls</li> </ul>	30
1.3	Quality assurance procedures, warranties applied	20
1.4	Relevance of: <ul style="list-style-type: none"> <li>- Specialised Knowledge</li> <li>- Experience on Similar Programme / Projects</li> <li>- Experience on Projects in the Region</li> </ul> Work for UNDP/ major multilateral/ or bilateral programmes	30
1.5	Key personnel for training and installation: expertise and experience in the region	30
		<b>140</b>

Technical Proposal Evaluation Form 2		Points Obtainable
<b>Proposed Methodology, Approach and Implementation Plan, including Technical Compliance with Equipment Specifications</b>		
2.1	To what degree does the Proposer fulfill the technical requirements of the main components with regards to: <b>Current Conditions Network (50 pts), Severe Weather Nowcasting Network (50 pts)</b>	100

2.2	To what degree does the Proposer fulfill the requirements with regards to <b>network, software and technical services:</b> Current Conditions Network (50 pts) Severe Nowcasting Network (50 pts) Weather Forecasting Solution (50 pts) Weather and Climate Data Display System (50 pts)	200
2.3	To what degree does the Proposer fulfill the requirements with regards to <b>EWS Network Designs and Hosting Plans</b>	50
2.4	To what degree does the Proposer fulfill the requirements with regards to <b>EWS Installation and Training</b>	50
2.5	To what degree does the Proposer fulfill the requirements with regards to <b>EWS Operation, Upgrade and Maintenance Services?</b>	50
2.6	To what degree does the Proposer fulfill the requirements with regards to <b>EWS Hardware and Software Warranty?</b>	20
2.8	Are the different components of the project adequately weighted relative to one another?	50
2.9	Is the presentation clear and is the sequence of activities and the planning logical, realistic and does it ensure efficient implementation to the project?	40
		<b>560</b>

## Section 3: Terms of Reference (TOR)

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### **A. PROJECT TITLE: Provision of Equipment and Services for National Meteorological and Hydrological Early Warning Systems**

### **B. PROJECT BACKGROUND:**

Climate stresses and low adaptive capacity are increasing Africa's vulnerability to climate change. Climate related shocks to the economy, vulnerable populations, ecosystems and infrastructure threaten development goals and poverty alleviation strategies. The ability of decision-makers to understand and communicate the likely impacts of climate change is of critical importance in adapting development plans to new climate realities. However, the lack of access to reliable climate information and the lack of capacity of disseminating it prove to be significant obstacles in allowing governments and populations to develop the correct tools to address the changes that will be brought on as a result of climate change.

The "Multi Country Programme to Strengthen Climate Information for Resilient Development and Adaptation to Climate Change in Africa" (CIRDA) enables vulnerable countries in Africa to strengthen national climate information systems as well as to benefit from regional coordination and draw upon a platform of knowledge management.

The CIRDA Programme coordinates among different stakeholders needs and capacities in collecting, generating, analysing and disseminating relevant climate information. It also provides capacity building on: meteorological, climate and hydrological observing and forecasting systems, disaster risk management and viable communication systems/processes for disseminating alerts, and the use of alternative cost-effective technologies. The Programme provides special consideration on reaching end user populations such as farmers as well as strategies to engage with the private sector as a service provider and as an end user of climate information.

The Multi Country Programme is being implemented by UNDP with funding from the Global Environment Facility (GEF) Least Developed Country Fund (LDCF) and is an example of the concrete actions that the UN is taking to reduce the impacts of climate change in all development sectors.

UNDP intends to establish Long Term Agreements (LTAs) with 1 or more proposers in order to provide Goods and Services for a National Meteorological and Hydrological Service Early Warning System (NHMS EWS) that will deliver reliable and accurate data about current, near-term, and medium-term weather conditions for the Requestor. The LTAs will include both Equipment and Services and will therefore incorporate Service Level Agreements (SLAs).

If multiple LTAs are established, a procurement process of secondary bidding between the LTA holders will be followed at the time of actual requests.

Secondary bidding will include the following steps:

- 1) UNDP will provide LTA-holders with the basic set of requirements received from National Counterparts (via UNDP Country Offices)
- 2) Vendors will review requirements and initiate the potential project.
- 3) Dialogue to validate and clarify requirements.
- 4) Vendors will provide initial design and offer in consideration of the ceiling price established in the LTA.
- 5) UNDP will evaluate and validate offers and identify the most technically sound, least expensive offer.
- 6) UNDP will award the Purchase Order to the vendor.

Price evaluation is based upon total costs: total price for all requested goods and services, and freight charges.

### C. TORS:

The technical specifications for the Equipment and Software are divided into four (4) major subsystems, which are also represented as Lots for purposes of the price schedules, for the observation and generation of weather and climate information:

- a. Current Conditions Network – A network of automatic weather stations (AWS) reporting real-time current surface weather conditions to the National Meteorological and Hydrological Service (NMHS) in the requesting country and the physical infrastructure, data processing systems, and operational services, including telecommunications, required to ensure reliable, accurate, and consistent data delivery.
- b. Severe Weather Nowcasting Network – A network of ground-based lightning detection sensors (LDS) locating cloud-to-ground and in-cloud lightning flashes, and the physical infrastructure, data processing systems, and operational services, including telecommunications, required to observe, predict, and provide early warnings about high impact short-term weather, especially convective storm development and movement, estimates of rainfall, and the potential for near-term flooding conditions.
- c. Weather Forecasting Solution – A software solution or data service that can receive data from the Current Conditions Network and the Severe Weather Nowcasting Solution, or other similar pre-existing data sources, as well as other regional and international weather and climate data streams, to deliver medium-range (1-10 day) forecasts of cities, towns, districts, and villages to the NMHS and the public.
- d. Weather and Climate Data Display System – A web browser-based weather and climate observed data and forecast visualization tool that can receive information from the Current Conditions, Severe Weather Nowcasting, and

Weather Forecasting Solutions, as well as other sources such as satellites, and enables alert customization and display at the NMHS and/or other national agencies.

The NMHS EWS also requires suppliers of the above systems to provide an array of additional professional services in order to ensure their proper implementation, operation, maintenance, and the development of NMHS capacity over the contract period. These professional services are defined in the following two sections:

- e. EWS Design and Implementation Services – In coordination with the NMHS and/or its infrastructure partner(s), the EWS supplier will execute and manage the final observation network design and implementation as well as provide initial operator and maintainer training on the total system to NMHS staff and infrastructure partner(s) prior to final acceptance.
- f. EWS Operation, Upgrade, and Maintenance Services – In coordination with the NMHS and/or its infrastructure partner(s), the EWS supplier will provide the ongoing services required to ensure that reliable and accurate data continues to be generated throughout the contract period, to include communication services, annual software updates and annual review and update training for operators and maintainers.

## **Technical Specifications of Equipment, Scope of Services and Expected Outcome**

### **a. Current Conditions Network**

This section will define the functional and technical specifications of the solutions required to monitor the current surface weather and climate conditions across the requesting Country/Region. A network of Automatic Weather Stations will be purchased and installed on mobile telecommunications towers, stand-alone towers and mounts, and/or other third-party infrastructure. The networked AWSs will report meteorological and housekeeping data back to the NMHS, and/or other national agencies via the mobile telecommunications network in real-time into either existing or procured Weather Forecasting Solutions and Weather and Climate Data Display Systems.

Two primary subsystems are required to deliver the Current Conditions Network – the Automatic Weather Station (AWS) Hardware and the Current Conditions Data Management Solution (CCDMS).

1. Automatic Weather Station (AWS) Hardware. AWS installations shall be equipped with the Basic Weather Sensors identified in Section 1.1. AWS installations may also include one or more of the sensors from the Optional weather sensor list from Section 1.3.

1.1. Basic Weather Sensors. Each AWS will contain a set of sensors that monitor and report the following weather parameters with the ranges and accuracies specified:

1.1.1. Air temperature. Range: -20 to +50 degrees C. Accuracy: +/- 0.3 degrees C.

- 1.1.2. Wind speed. Range: 0-60 m/sec. Accuracy: +/- 5% RMS of the reading.
  - 1.1.3. Wind direction. Range: 0-359 degrees. Accuracy: +/- 5 degrees.
  - 1.1.4. Air pressure. Range: 300-1100 hPa. Accuracy: +/- 0.5 hPa.
  - 1.1.5. Relative humidity. Range: 0-100%. Accuracy: +/- 3%.
  - 1.1.6. Solar radiation. Spectral range: 300 to 1100nm. Measuring range: 0-1400 W/m<sup>2</sup>. Accuracy: +/- 5%.
  - 1.1.7. Precipitation. If the offered precipitation sensor is a rain gauge, then it must have a range of 0 to 150 mm/hr and accuracy of +/- 10%. If the offered precipitation sensor only signals the presence or absence of rain and/or precipitation type (rain, fog, mist, and/or dew), then an additional, separate precipitation sensor as specified in Section 1.3.1.1 shall be included with the AWS.
- 1.2. AWS packaging. All weather sensors in section 1.1 shall be packaged into a single, all-in-one unit and function without the need for moving parts with two exceptions:
- 1.2.1. The solar radiation sensor from Section 1.1.6 may be provided as a separate, stand-alone sensor.
  - 1.2.2. The precipitation sensor from Section 1.1.7 may be a tipping bucket gauge with moving parts.
- 1.3. Optional weather sensors:
- 1.3.1.1. Precipitation – separate tipping bucket rain gauge. Range 0 to 200 mm/h. Accuracy: +/- 1% at 25 mm/h. An Alter shield or equivalent rain gauge wind screen will be provided with each such gauge.
  - 1.3.1.2. Soil moisture. Range: 0-100% saturation. Accuracy: +/- 2%.
  - 1.3.1.3. Soil temperature. Range: -20 to +50 degrees C. Accuracy: +/- 0.2 degrees C.
  - 1.3.1.4. Leaf wetness. Range: Dry or wet.
  - 1.3.1.5. Pyrgeometer. Spectral Range: 4500 to 42000 nm.
- 1.4. AWS Data Collection and Transmission Unit (AWS DCTU)
- 1.4.1. The AWS DCTU shall receive, store, and transmit Current Conditions data to the Current Conditions Data Management System (CC DMS; defined further below).
  - 1.4.2. The AWS DCTU shall store not less than 7 days of observation data if communication services have been compromised. Upon restoration of service following a communications outage, the AWS DCTU shall be able to transmit the data collected during the outage to the CC DMS. The data stored in the AWS DCTU shall be locally accessible for maintenance and other purposes.
  - 1.4.3. The AWS DCTU shall contain sufficient onboard battery power to record data when the primary power sources have been compromised. The AWS DCTU shall have the capacity to automatically switch back and forth between the primary power source and the onboard battery backup power source without loss of data or manual intervention.

- 1.4.4. The AWS DCTU shall allow for remote control and firmware updates.
- 1.4.5. The AWS DCTU shall allow for the connection of one or more of the additional sensors (see Section 1.3 for ranges and accuracy), which shall not be included in the all-in-one unit from Sections 1.1 and 1.2.
- 1.4.6. The AWS DCTU shall be able to transmit data to the CC DMS three different ways: real-time data streaming, data store & forward, and data pull from the CC DMS.
- 1.4.7. The AWS DCTU shall be packaged, enclosed, or encased in a weatherproof housing.

## 1.5. AWS Installation Hardware

- 1.5.1. The proposer, or its local partner(s), shall provide all hardware required to mount the AWS.
  - 1.5.1.1. All support arms for sensor mounts shall be manufactured using anodized aluminum or galvanized steel and be fitted to the tower-scaffold by means of stainless steel and/or hot galvanized clamps and stock of screws.
  - 1.5.1.2. All cables used by the solution shall be UV proof.
- 1.5.2. The proposer, or its local partner(s), shall provide all equipment required to enable the AWS to communicate with the CCDMS.
- 1.5.3. The proposer, or its local partner(s), shall provide all equipment necessary to properly ground and protect the AWS from lightning damage.
- 1.5.4. The proposer, or its local partner(s), shall provide all equipment necessary to protect the AWS from vandalism or theft.

## 2. Current Conditions Data Management System (CCDMS)

### 2.1. Weather and Climate Data Input, Processing, Storage, and Output

- 2.1.1. The CCDMS shall receive, process, and store weather and climate data from the network of the required number of AWSs and the AWS DCTU, allowing for expansion of the network at a later date.
- 2.1.2. The CCDMS shall store the following weather and climate data parameters (at a minimum):
  - 2.1.2.1. Current temperature at the sensor
  - 2.1.2.2. High temperature for the day
  - 2.1.2.3. Low temperature for the day
  - 2.1.2.4. Rate of temperature change
  - 2.1.2.5. Current wind speed
  - 2.1.2.6. Current wind direction
  - 2.1.2.7. Average wind speed
  - 2.1.2.8. Highest wind gust for the day
  - 2.1.2.9. Wind chill
  - 2.1.2.10. Heat index
  - 2.1.2.11. Daily rainfall accumulation
  - 2.1.2.12. Monthly rainfall accumulation

- 2.1.2.13. Annual rainfall accumulation
- 2.1.2.14. Rainfall rate per hour
- 2.1.2.15. Maximum rainfall rate per hour
- 2.1.2.16. Current Barometric pressure
- 2.1.2.17. Current Barometric pressure rate
- 2.1.2.18. Maximum barometric pressure for the day
- 2.1.2.19. Minimum barometric pressure for the day
- 2.1.2.20. Dew point
- 2.1.2.21. Wet bulb
- 2.1.2.22. Relative humidity
- 2.1.2.23. Relative humidity change rate
- 2.1.2.24. Maximum relative humidity for the day
- 2.1.2.25. Minimum relative humidity for the day

2.1.3. The CCDMS shall have the capability to store the following Metadata for each of the AWS reporting sites:

- 2.1.3.1. Site name in local language of NMHS and English
- 2.1.3.2. Latitude/Longitude and elevation of the site as determined by GPS and the date, time, and technician's name that recorded the information.
- 2.1.3.3. Serial Numbers for the AWS sensor(s) and the AWS DCTU, and any changes made in the serial numbers of either piece of equipment over time.
- 2.1.3.4. Point of Contact information, including mobile phone number and email addresses as available, for the technician assigned primary responsibility for each AWS reporting site
- 2.1.3.5. Panoramic (360°) photos from the AWS site, including views from the ground and at height where the primary wind sensor is installed, together with views of the site showing all the equipment from the four main compass directions. Provision should be made in the metadata base for additional images to be added annually, providing a photographic record of the evolution of the site and its surroundings through time.
- 2.1.3.6. AWS site characteristics such as building or tower characteristics, roof material, installation location relative to structures, surrounding materials, and color
- 2.1.3.7. For roof and tower installations: height of structure, height of sensor shelter relative to structure, and height of anemometer relative to structure
- 2.1.3.8. Documentation, by direction, of the closest wind obstructions within 500 meters of the site
- 2.1.3.9. Maintenance performed to the station or sensors during the site visits

2.1.4. The CCDMS shall have sufficient storage capacity to record data observations at fifteen (15) minute intervals from all AWS sites for at least ten (10) years

beginning from the initial installation.

2.1.5. The CCDMS shall have a defined and documented Application Programming Interface (API) that allows for the input of digitized weather and climate observation data from other observation sites or AWS networks.

2.1.6. The CCDMS shall have a defined and documented API that makes the weather and climate data available in real-time for ingesting into the Weather and Climate Data Display System or other GIS display systems, databases, or applications.

## 2.2. Weather and Climate Data Quality Assurance/Quality Control (QA/QC)

2.2.1. The CCDMS shall perform automatic weather and climate data quality assurance / quality control on the data received from each AWS reporting site. That automatic data quality assurance/control process shall include at least the following functions:

2.2.1.1. Range Check: Verification that the observation is within the physical range of the sensor.

2.2.1.2. Step Check: Verification that the change from one observation to the other is within an acceptable range for that data parameter.

2.2.1.3. Climate Check: Verification that the observation is within the acceptable range for the geography and the season.

2.2.1.4. Persistence Check: Verification that the sensor is not reporting the same value over a long period of time.

2.2.1.5. Nearest Neighbor Check: Verification that the AWS site isn't reporting data substantially different from those of the nearest five (5) other AWS sites by using data averages over a 24-hour period.

2.2.1.6. Documentation on each of these checks, and their respective ranges, shall be made available to the NMHS and become part of the system metadata.

2.2.2. Failure of any sensor or site to pass the automatic QC procedures above shall initiate at least the following actions within the CCDMS:

2.2.2.1. The AWS Site shall be flagged by the CCDMS as having a potential problem, and highlighted as such in a web-browser based interface that can be viewed by the technician or team responsible for the Current Conditions AWS network operation. The suspicious data shall be flagged as such, but retained in the archival data base.

2.2.2.2. The CCDMS shall automatically contact, via email and/or SMS, the field technician responsible for the AWS site in question with a message identifying the cause of the suspicious data.

2.2.2.3. In order to support weather forecasting systems that require a continuous stream of observation data without gaps, the CCDMS shall have the ability to "Gap Fill", which is defined as the process in which substitute pseudo- observations are calculated and filled into the operational database to provide a continuous stream of measurements

without gaps. N.B. both the original/flagged suspicious data and the substitute pseudo-observations become part of the archival database.

### 2.3. CCDMS Architecture

2.3.1. The CCDMS may be delivered in one of the following two ways:

CCDMS Architecture	Internet cloud-based service	IT system installed at NMHS
Option 1	Primary CCDMS	Backup data storage system
Option 2	Backup data storage system	Primary CCDMS

2.3.2. The Primary CCDMS shall enable all the data management, processing, and storage features outlined in sections 2.1 and 2.2.

2.3.3. The Backup data storage system shall serve solely to provide for the storage of data from the Current Conditions network and need not function as a complete replica of the Primary CCDMS.

2.3.4. The proposer shall furnish all computer hardware and 3<sup>rd</sup> party software and services required to deliver both the IT systems and the internet cloud-based services for the duration of the contract.

2.3.5. Access to the CCDMS must be provided to NMHS headquarter staff, NMHS field engineering staff, and/or 3<sup>rd</sup> party network management staff through standard web browser-based software that is accessed via authenticated username/password controls.

2.3.6. Proposers are encouraged to provide pricing for both options but may elect to support only a single option.

#### b. **Severe Weather Nowcasting Network**

The NMHS will implement a national or regional Severe Weather Nowcasting Network to observe high impact phenomena, such as convective storm development, intensification and movement, and provide storm warnings and rainfall/precipitation estimates. The Severe Weather Nowcasting Network will enable early warnings of severe weather and imminent floods to be issued by the NMHS to its staff, agency(ies), and the public, and will be based on data that is obtained from a national or regional network of ground-based lightning detection sensors locating both cloud-to-ground and incloud lightning flashes.

The Severe Weather Nowcasting Network will deliver data to the NMHS and/or other national agencies and, if required by the NMHS, into any pre-existing or acquired Weather Forecasting Solution or Weather and Climate Data Display System in real-time.

Two primary subsystems are required to deliver the Severe Weather Nowcasting Network – the Lightning Detection Network (LDN) Hardware and the LDN Data Management Solution (LDN DMS).

1. Lightning Detection Network Hardware
  - 1.1. Lightning Detection Network (LDN) Performance Specifications
    - 1.1.1. The LDN shall use the Time-Of-Arrival (TOA) methodology to integrate multiple Lightning Detection Sensors into a single network used to precisely locate and classify lightning stroke data.
    - 1.1.2. The LDN shall enable the location of lightning strokes, and their classification as either Cloud to Ground (CG) or InCloud (IC) flashes.
    - 1.1.3. The LDN shall operate according to the following performance criteria:
      - 1.1.3.1. Ninety percent (90%) Detection Efficiency (DE) rate for Cloud to Ground (CG) lightning over the specified coverage area. Methodologies used to arrive at the DE rate should be described and verified through ground truth case studies supplied in the proposer's response.
      - 1.1.3.2. Fifty percent (50%) Detection Efficiency rate for InCloud (IC) lightning over the specified coverage area. Methodologies used to arrive at the DE rate should be described and verified through comparative case studies supplied in proposer's response.
      - 1.1.3.3. Location Accuracy of CG and IC Flashes shall be an average of 500 meters or greater. Methodologies used to arrive at the Location Accuracy should be described and verified through ground truth case studies supplied in proposer's response.
    - 1.1.4. The number of sensors and the approximate location of each sensor required to cover a national/regional area, with the above network performance criteria shall be identified by the proposer.
    - 1.1.5. Notwithstanding the network performance criteria above, the baseline sensor separation shall be no greater than 300 kilometers, and there shall be no fewer than nine (9) Lightning Detection Sensors (LDS) included in any one network configuration.
    - 1.1.6. Proposer shall provide maps demonstrating the expected CG and IC Detection Efficiency as well as Location Accuracy for a network of nine (9) LDS covering an area of 250,000 km<sup>2</sup>.
  - 1.2. The Lightning Detection Sensor (LDS)
    - 1.2.1. The LDS method of lightning detection must be described in detail in the proposer's response document.
    - 1.2.2. LDS electronics shall be housed in environmentally sealed enclosures.
    - 1.2.3. The LDS shall operate using standard internet (IP) communications and electric power
    - 1.2.4. The LDS should allow for installation and operation on mobile communications towers without any electrical or frequency interference from or to standard mobile telecommunications equipment.
    - 1.2.5. The LDS shall require no regularly scheduled maintenance
    - 1.2.6. The LDS shall enable remote calibration, software updates and testing without site visits

### 1.3. The LDS Data Transmission Unit (DTU)

- 1.3.1. The DTU shall transmit data received from the LDS to the LDN Data Management System (DMS) - described further below - in real-time.
- 1.3.2. The DTU shall allow for remote control and firmware updates.
- 1.3.3. The DTU shall have an internal battery backup enabling operation for up to 3 hours if the primary source of power has been compromised.
- 1.3.4. The DTU shall automatically reset under substandard operating conditions
- 1.3.5. The DTU should be packaged or enclosed in a weather-proof facility

### 1.4. LDS Installation Hardware

- 1.4.1. The proposer, or its local partner(s), shall provide all hardware required to mount the LDS.
  - 1.4.1.1. All support arms for sensor mounts shall be manufactured using anodized aluminum or galvanized steel and be fitted to the tower-scaffold by means of stainless steel and/or hot galvanized clamps and stock of screws.
  - 1.4.1.2. All cables used by the solution shall be UV proof.
- 1.4.2. The proposer, or its local partner(s), shall provide all equipment required to enable the LDS to communicate with the LDN DMS.
- 1.4.3. The proposer, or its local partner(s), shall provide all equipment necessary to protect the LDS from environmental damage.
- 1.4.4. The proposer, or its local partner(s), shall provide all equipment necessary to protect the LDS from vandalism or theft.

## 2. Lightning Detection Network Data Management Solution (LDN DMS)

2.1. The LDN DMS shall assimilate, validate, locate, classify, process, store, and redistribute all lightning data received from the LDN.

### 2.2. Basic Lightning Data

2.2.1. The LDN DMS shall record the following data characterizing the observed lightning activity:

- 2.2.1.1. Pulse or Flash time in Coordinated Universal Time (UTC)
- 2.2.1.2. Location
- 2.2.1.3. Latitude in decimal degrees
- 2.2.1.4. Longitude in decimal degrees
- 2.2.1.5. Polarity
- 2.2.1.6. Signal strength
- 2.2.1.7. Type: Cloud to Ground (CG) or InCloud (IC)
- 2.2.1.8. Height of IC in km

2.2.2. Total time from the time the lightning occurs to the time that flash is reported must be 30 seconds or less for 99% of all flashes.

2.2.3. Accuracy of the reported time of lightning strikes shall be one (1) second or better.

2.2.4. No more than 1% of all reported lightning flashes can be from non-lightning

events.

2.2.5.The LDN DMS shall have sufficient storage capacity to record data observations for at least ten (10) years beginning from the initial LDS installation.

2.2.6.The LDN DMS shall be capable of storing the following Metadata for each of the LDS sites:

- 2.2.6.1. Site name in local language of NMHS and English
- 2.2.6.2. Latitude/Longitude and elevation of the site as determined by GPS
- 2.2.6.3. Serial Numbers for the LDS sensor and the LDS DTU
- 2.2.6.4. Point of Contact information, including mobile phone number and email addresses as available, for the technician assigned primary responsibility for each LDS site
- 2.2.6.5. Photos of the LDS site including views from the ground and at installation height
- 2.2.6.6. LDS site characteristics such as building or tower characteristics, roof material, installation location relative to structures and surrounding materials
- 2.2.6.7. Maintenance performed to the station or sensors during the site visits

2.2.7.LDS, LDN and overall system performance shall be continuously monitored and controlled by the LDS DMS and accessible via its web-based software interfaces.

2.2.8.The LDN DMS shall have a defined and documented API that makes the Basic Lightning Data available in real-time for ingest into the Weather and Climate Data Display System or other GIS display systems, databases or applications.

### 2.3. Severe Weather Warnings

2.3.1.The LDN DMS shall use raw and processed lightning data to track the initiation and development of convective storm cells and to automatically generate real-time severe weather warnings.

2.3.2.The LDN DMS shall cluster raw lightning data into storm cells with defined boundaries at no longer than one-minute intervals, and no less than one-minute latency.

2.3.3.The storm cells shall record perimeter boundaries, center, size, speed, and direction of travel, as well as IC and CG flash and stroke rates every minute.

2.3.4.The LDN DMS shall have the capacity to issue no less than three different levels of weather warnings: mild, moderate, and severe.

2.3.5.A Severe Weather Warning shall be issued by the LDN DMS once a storm cell's characteristics have exceeded thresholds indicating an imminent severe weather threat.

2.3.6.The Severe Weather Warning shall be in two forms: a polygon indicating the speed and direction of the threat as well as its probable location and duration, and a corresponding and similarly descriptive text alert.

- 2.3.7. The Severe Weather Warnings shall be automated and provide advanced warning on the potential for severe weather such as frequent lightning, hail, heavy rainfall, wind gusts, and other types of severe weather.
- 2.3.8. The Severe Weather Warnings shall be updated at regular intervals until the dangerous weather activity is no longer a threat and the warning expires.
- 2.3.9. The Severe Weather Warnings shall be made available via a documented API reporting the information in CAP (Common Alert Protocol) format to the Weather and Climate Data Display System or other GIS display systems, databases or applications.

2.4. Convective Rainfall Estimates

- 2.4.1. The LDN DMS shall use CG and IC lightning data to create an image simulating composite radar reflectivity in standard dBz units.
- 2.4.2. This simulated radar product shall be based on research correlating the proposer’s LDN solution with actual weather radar reflectivity data in other geographic areas.
- 2.4.3. The simulated radar product shall be tunable allowing for the system to match the climate and seasonal characteristics in the coverage area.
- 2.4.4. The data shall provide the basis for real-time rainfall estimates as well as accumulated convective rainfall totals over days, months, and seasons.
- 2.4.5. The simulated radar and convective rainfall estimates shall be made available via a documented API reporting the information in NET CDF or other similar format to the Weather and Climate Data Display System or other GIS display systems, databases or applications.

2.5. LDN DMS Architecture

2.5.1. The LDN DMS may delivered in one of the following two ways:

LDN DMS Architecture	Internet cloud-based service	IT system installed at NMHS
Option 1	Primary LDN DMS	Backup data storage system
Option 2	Backup data storage system	Primary LDN DMS

- 2.5.2. The Primary LDN DMS shall enable all the data management, processing, and storage features outlined in sections 2.1, 2.2, 2.3, and 2.4.
- 2.5.3. The Backup data storage system shall serve solely to provide for the storage of data from the Severe Weather Nowcasting Network and need not function as a complete replica of the Primary LDN DMS.
- 2.5.4. The proposer shall furnish all computer hardware and 3<sup>rd</sup> party software and services required to deliver both the IT systems and the internet cloud-based services for the duration of the contract.
- 2.5.5. Access to the LDN DMS must be provided to NMHS headquarter staff, NMHS field engineering staff, and/or 3<sup>rd</sup> party network management staff through standard web browser-based software that is accessed via authenticated username/password controls.
- 2.5.6. Proposers are encouraged to provide pricing for both options but may elect to

support only a single option.

**c. Weather Forecasting Solution**

The service provider will implement a Weather Forecasting Solution (WFS) that will generate and deliver medium-range (1-10 day) forecasts of cities, towns, and villages across the recipient Country/Region to the NMHS and the public. The WFS shall use data from the Current Conditions and Severe Weather Nowcasting subsystems, when available, as well as other weather and climate data streams, to improve upon the accuracy of forecast information.

The WFS will deliver point data to the NMHS and/or other national agencies and into the Weather and Climate Data Display System as it becomes available.

1. The WFS shall produce forecasts for up to 500 cities, towns, districts and villages to be defined by the NMHS during implementation phase.
2. The WFS shall provide forecasts for each location for at least the following weather parameters:
  - 2.1. Temperature
  - 2.2. 24hr High Temperature
  - 2.3. 24hr Low Temperature
  - 2.4. Wind Speed
  - 2.5. Wind Direction
  - 2.6. Dew Point
  - 2.7. Cloud Cover
  - 2.8. Thunderstorm Probability
  - 2.9. 1hr Precipitation Probability
  - 2.10. 1hr Accumulated  
Precipitation
  - 2.11. Precipitation Probability  
Type
  - 2.12. Surface Pressure
  - 2.13. Mean Sea Level Pressure
  - 2.14. Forecasted Surface  
Insolation
  - 2.15. Fog Probability
  - 2.16. Visibility
  - 2.17. Rain Probability
  - 2.18. Ice Probability

3. The WFS shall provide at least 6 hourly forecast output for the 0 - 10 day forecast period, and hourly forecast output for at least the 0 – 5 day forecast period.
4. The WFS shall provide updates to the forecast at least every one hour.
5. The Weather Forecasting System (WFS) shall use multiple global models from international forecasting centres of excellence, such as the ECMWF, NCEP, UK Met Office and others, as ensemble input to a Model Output Statistical (MOS) algorithm to generate the forecast.
6. The forecast grid resolution size shall be no greater than 12.5km.
7. The WFS shall utilize current conditions and convective storm information, when available from the subsystems, as an input to improve model forecast output, and provide model verification.
8. The proposer shall provide hindcast skill assessments for the WFS.
9. The WFS shall have a defined and documented API that makes the weather forecast data available in real-time for ingest into the Weather and Climate Data Display System or other GIS display systems, databases or applications.
10. WFS Architecture
  - 10.1. The WFS can be delivered as either as an internet cloud-based service or as a server-based system installed at the NMHS headquarters facility.
  - 10.2. The proposer must furnish all computer hardware and any 3<sup>rd</sup> party software or services necessary to ensure the operation of the WFS for the duration of the contract period.

**d. Weather and Climate Data Display System**

The Weather and Climate Data Display System (WCDDS) shall be a browser-based visualization tool that enables the display of weather and climate information generated from the Current Conditions, Severe Weather Nowcasting, and Weather Forecasting Solutions and/or other existing or future weather and climate data information sources.

1. The WCDDS shall enable NMHS staff (and other Gov't Agencies) to visualize current and historical weather and climate data, including real-time current conditions, convective storm activity, severe weather warnings, and medium-range forecasts throughout the Country/Region.
2. The WCDDS shall enable individual user profiles to create custom views and alerts for specific geographic areas and/or data types that are displayed and delivered for their personalized log in.
3. The WCDDS shall be accessible from any NMHS computer or laptop using standard web browser technology and the internet.
4. The WCDDS shall incorporate Geographic Information System (GIS) principles that aid visualization of weather and climate data in the following ways:
  - 4.1. Local maps, districts, cities, landmarks, populations and other special assets should be displayed on a geographic map with zoom in and zoom out features.
  - 4.2. Multiple selectable layers of different types of weather data shall be able to be viewed on the same map display
  - 4.3. Weather and climate data can be represented as either point, gridded or contour data.
  - 4.4. Using the local language of the NMHS as well as English
5. The WCDDS shall provide users with a way to visualize at least the following weather and climate information:
  - 5.1. Real-time Current Conditions
    - 5.1.1. All weather and climate data parameters from "Current Conditions" Section 2.1.2 shall be displayed for every AWS site from within the Current Conditions network with latency no greater than 15 minutes.
    - 5.1.2. All CG and IC lightning data parameters from "Severe Weather Nowcasting" 2.2.1 shall be displayed for every lightning stroke or flash identified by the LDN with latency no greater than 1 minute.
    - 5.1.3. Storm Cells and Storm Tracks
      - 5.1.3.1. Storm Cells, as defined in "Severe Weather Nowcasting" 2.3.2 and 2.3.3 shall be displayed for every storm identified by the LDN DMS with latency no greater than 1 minute.
      - 5.1.3.2. Storm Tracks, defined by the 1-minute centre points for every Storm Cell, shall be displayed for every storm identified by the LDN DMS until that storm has diminished.
    - 5.1.4. Severe Weather Warnings, as defined in "Severe Weather Nowcasting" 2.3.5-8, shall be displayed for every Storm Cell determined by the LDN DMS to require an alert.
    - 5.1.5. Convective Rainfall Estimates, as defined in "Severe Weather Nowcasting" 2.4, shall be displayed in visual form, similar to weather radar output, for all convective rainfall activity

as determined by the LDN DMS.

- 5.2. Weather Forecasts, as defined in “Weather Forecasting Solution”, shall be displayed in graphical as well as tabular form for every city, town, district or village forecasted by the WFS.
- 5.3. Historical Weather Information, for every AWS site from the Current Conditions network, shall be displayed in tabular and graphical form.
- 5.4. Weather Alerts
  - 5.4.1. The WCDDS shall provide a tool that enables each individual user to define specific weather alerts based on information from an AWS site, or the presence of severe weather in a specific area.
  - 5.4.2. The Weather Alerts shall provide instant notifications to the user when weather parameters exceed customizable and preset thresholds
  - 5.4.3. Notification channels shall include visual, audible, email, and SMS.

## Scope of Services:

In close coordination with the NMHS, the proposer is required to *design, deliver, and operate* the EWS for the duration of the contract period. The proposer will operate as the prime contractor, and shall engage local suppliers, such as mobile telecommunications companies or other service providers, for additional services as required to fulfill its obligations to the NMHS under this contract.

The term of each contract shall be for 3 years, which shall include a 6-month phase for EWS Design and Implementation while the remaining 2.5 years will be allocated for operations and maintenance.

### **e. EWS Design and Implementation**

The EWS shall be delivered to the NMHS in two distinct phases, each with a deliverable requiring acceptance by the NMHS.

1. The Project Plan shall consist of a full network design for the AWS Current Conditions observation network and the Severe Weather Nowcasting LDN, and
2. The Implementation phase shall consist of the full system installation and training.

The Implementation phase shall not begin until the Project Plan phase has been fully completed, including the final signatures on the Network Design Plans and the Project Management Plans as described below.

#### Project Plan Phase

##### 1. Network Designs and Hosting Plans

###### 1.1. Current Conditions Network Design and Hosting Plan

1.1.1. The proposer shall conduct an audit of the existing surface observations available within the Country/Region.

1.1.1.1. The audit shall include data available from the NMHS or other sources – public or private – which might be obtained for use within the Current Conditions network

1.1.1.2. Meteorological parameters, reporting frequency, site locations, data quality, and data transmission systems shall be investigated to determine any gaps in coverage that should be filled.

1.1.1.3. The proposer shall investigate options for hosting the AWS hardware with third parties, including mobile telecommunications companies, as an input to the final network design recommendation.

1.1.1.4. The proposer shall ensure that sufficient power, including backup power, physical security, and communication services are available to support the recommended network configuration for the duration of the contract. For the sake of clarity, “available” means the proposer must provide, either directly or indirectly, these services for the duration of the contract.

1.1.2. Based on both the meteorological needs and the operational constraints of the area under consideration, the proposer shall recommend the best locations for the Current Conditions

network implementation.

1.2. Severe Weather Nowcasting Network Design and Hosting Plan

1.2.1. The proposer shall investigate options for hosting the LDS hardware with third parties, including mobile telecommunications companies, as an input to the final network design recommendation.

1.2.2. The proposer shall ensure that sufficient power, including backup power, physical security, and communication services are available to support the recommended network configuration for the duration of the contract. For the sake of clarity, “available” means the proposer must provide, either directly or indirectly, these services for the duration of the contract.

1.2.3. Based on both the spatial requirements of the proposer’s LDN technology and the operational constraints of the area under consideration, the proposer shall recommend the best locations for the Severe Weather Nowcasting Network implementation.

2. The proposer shall produce a project management plan including, at least, the following:

2.1. Timeline: All tasks related to project implementation including network design, installation, training, testing, and acceptance.

2.2. Responsibilities: All parties involved in project implementation, including the proposer, the NMHS, and any other third parties, shall be identified, and their roles and responsibilities specified.

2.3. Acceptance Criteria: The plan shall define system performance criteria that each subsystem must meet in order to achieve an Acceptance status by the NMHS.

Implementation Phase

1. Installation

1.1. Delivery

1.1.1. Upon receipt of the Customs Clearance Certificate from the UNDP, the proposer shall deliver all goods and materials sourced internationally to the UNDP in the recipient country at a physical address provided by the requestor.

1.1.2. The proposer shall not be responsible to pay for customs fees/import duties on the goods and materials delivered to support the EWS.

1.1.3. Goods and materials shall be cleared through customs by UNDP.

1.2. Deployment

1.2.1. The proposer shall install the Current Conditions network, and its associated Data Management System, in accordance with the presented design and project plans.

1.2.2. The proposer shall install the Severe Weather Nowcasting network, and its associated Data Management System, in accordance with the presented design and project plans.

1.2.3. The proposer shall be responsible for all costs associated with any civil works required to install the Current Conditions and the Severe Weather Nowcasting networks.

1.2.4.The proposer shall install the Forecasting Solution in accordance with the presented design and project plans.

1.2.5.The proposer shall install the Weather and Climate Data Display System in accordance with the presented design and project plans.

## 2. Training

### 2.1. Current Conditions Network

2.1.1.The proposer shall provide 3 days of onsite, formal training session to NMHS staff on the technology, systems, and installation procedures required to implement the AWS hardware on the Current Conditions Network.

2.1.2.The proposer shall include the NMHS field engineering staff on at least two installations of AWS equipment on the Current Conditions network.

### 2.2. Severe Weather Nowcasting Network

2.2.1.The proposer shall provide 3 days of onsite, formal training session to NMHS staff on the technology, systems, and installation procedures required to implement the LDS hardware on the Severe Weather Nowcasting Network.

2.2.2.The proposer shall include the NMHS field engineering staff on at least two installations of LDS equipment on the Severe Weather Nowcasting network.

### 2.3. Forecasting Solution

2.3.1.The proposer shall provide 2 days of onsite, formal training session to NMHS staff on the methodologies used and the output from the Forecasting Solution.

### 2.4. Weather and Climate Data Display System

2.4.1.The proposer shall provide 2 days of onsite, formal training session to NMHS staff on the functionality of the Weather and Climate Data Display System.

## f. EWS Operation and Maintenance Services

The proposer will be required to ensure that the EWS operates according to the contracted Service Level Agreements (SLAs) as defined here in this section. This operational requirement includes the establishment and maintenance of any third party agreements, and the payment of their financial obligations, to maintain the full functionality of the EWS.

For the sake of clarity, these operational duties include:

1. Site hosting agreements, and any costs incurred to maintain the physical security of the installed network hardware,
2. The main power and any backup power systems required to ensure continuous operation of the network hardware,
3. The communication services required to maintain a continuous flow of data from the network

hardware.

The proposer, or a sub-contracted third party, shall be responsible for all hardware, software, and system maintenance requirements, including:

1. All physical site visits, whether preventative or callout,
2. Remote management of the systems used to generate the weather and climate data from all subsystems, and
3. Hardware replacement for any equipment lost or damaged due to malfunction as well as theft.
4. System and software upgrades that become available during the contract period.

#### Service Level Agreements (SLA)

1. Through the establishment of an operating plan, and any 3<sup>rd</sup> party infrastructure providers, the proposer shall commit to operate the Current Conditions network under an SLA that ensures the delivery of data from each AWS of 80% availability every month.
2. Through the establishment of an operating plan, and any 3<sup>rd</sup> party infrastructure providers, the proposer shall commit to operate the Severe Weather Nowcasting network under an SLA that ensures the delivery of from the LDN of 80% availability every month.
3. Through the establishment of an operating plan, and any 3<sup>rd</sup> party providers, the proposer shall commit to operate the Forecasting Solution under an SLA that ensures the delivery of data with 80% availability every month.
4. Through the establishment of an operating plan, and any 3<sup>rd</sup> party providers, the proposer shall commit to operate the Weather and Climate Data Display System under an SLA that ensures the delivery of data with 80% availability every month.

#### Hardware and Software Warranty

All network and computer hardware, as well as computer software, provided by the proposer shall have a one-year, no-cost warranty.

The proposer shall provide onsite training services on the following topics every year during the contract period:

1. Installation of the Current Conditions network hardware
2. Installation of the Severe Weather Nowcasting network hardware
3. Operation of the Current Conditions network hardware and CCDMS system
4. Operation of the Severe Weather Nowcasting network hardware and the LDNDMS system
5. Operation of the Forecasting Solution
6. Operation of the Weather and Climate Data Display System

**C. Institutional Arrangement**

The proposer will report to the Country Office/ Lead Project Manager or to the BU appointed Operations Manager for orders placed under the resulting LTAs.

**D. Duration of the Contract/Work**

The duration of the expected LTAs is *minimum* 3 years, *maximum* 5 years.

**E. Location of Work**

The LTAs may be used at a global level, however, it is expected that most of the projects will be in LDCs in Africa.

**F. Criteria for Selecting the Best Offer**

**As indicated in Section 25 of the Bid data sheet, in principle, UNDP intends to award the contracts to and establish LTAs with contractors who score the highest points in the technical / financial combinations scoring system.**

**For a proposal to be considered as technically qualified, it needs to obtain a minimum score of 70%. Only technical proposals exceeding this score will qualify for evaluation of financial proposals.**

## Section 4: Proposal Submission Form<sup>7</sup>

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[insert: Location]

[insert: Date]

To: [insert: Name and Address of UNDP focal point]

Dear Sir/Madam:

We, the undersigned, hereby offer to provide professional services for [insert: title of services] in accordance with your Request for Proposal dated [insert: Date] and our Proposal. We are hereby submitting our Proposal, which includes the Technical Proposal and Financial Proposal sealed under a separate envelope.

We hereby declare that:

- a) All the information and statements made in this Proposal are true and we accept that any misrepresentation contained in it may lead to our disqualification;
- b) We are currently not on the removed or suspended vendor list of the UN or other such lists of other UN agencies, nor are we associated with, any company or individual appearing on the 1267/1989 list of the UN Security Council;
- c) We have no outstanding bankruptcy or pending litigation or any legal action that could impair our operation as a going concern; and
- d) We do not employ, nor anticipate employing, any person who is or was recently employed by the UN or UNDP.

We confirm that we have read, understood and hereby accept the Terms of Reference describing the duties and responsibilities required of us in this RFP, and the General Terms and Conditions of UNDP's Contract for Professional Services.

We agree to abide by this Proposal for [insert: period of validity as indicated in Data Sheet].

We undertake, if our Proposal is accepted, to initiate the services not later than the date indicated in the Data Sheet.

We fully understand and recognize that UNDP is not bound to accept this proposal, that we shall bear all costs associated with its preparation and submission, and that UNDP will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the evaluation.

We remain,

Yours sincerely,

Authorized Signature [In full and initials]: \_\_\_\_\_

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<sup>7</sup> No deletion or modification may be made in this form. Any such deletion or modification may lead to the rejection of the Proposal.

Name and Title of Signatory: \_\_\_\_\_

Name of Firm: \_\_\_\_\_

Contact Details : \_\_\_\_\_

*[please mark this letter with your corporate seal, if available]*

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## Section 5: Documents Establishing the Eligibility and Qualifications of the Proposer

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Proposer Information Form<sup>8</sup>

Date: *[insert date (as day, month and year) of Proposal Submission]*

RFP No.: *[insert number]*

Page \_\_\_\_\_ of \_\_\_\_\_ pages

1. Proposer's Legal Name <i>[insert Proposer's legal name]</i>		
2. In case of Joint Venture (JV), legal name of each party: <i>[insert legal name of each party in JV]</i>		
3. Actual or intended Country/ies of Registration/Operation: <i>[insert actual or intended Country of Registration]</i>		
4. Year of Registration: <i>[insert Proposer's year of registration]</i>		
5. Countries of Operation	6. No. of staff in each Country	7. Years of Operation in each Country
8. Company Profile, which should <u>not</u> exceed fifteen (15) pages, including printed brochures and product catalogues relevant to the goods/services being procured		
9. Certificate of Registration of the business, including Articles of Incorporation, or equivalent document if Bidder is not a corporation		
10. Quality Certificate (e.g., ISO, etc.) and/or other similar certificates, accreditations, awards and citations received by the Bidder for their company (not goods), if any		
11. Environmental Compliance Certificates, Accreditations, Markings/Labels, and other evidences of the Bidder's practices which contributes to the ecological sustainability and reduction of adverse environmental impact (e.g., use of non-toxic substances, recycled raw materials, energy-efficient equipment, reduced carbon emission, etc.), either in its business practices or in the goods it manufactures		
12. Plan and details of manufacturing capacity, if Bidder is a manufacturer of the goods to be supplied		
13. <b>Certification or authorization to act as Agent in behalf of the Manufacturer</b> , or Power of Attorney, if bidder is not a manufacturer		

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<sup>8</sup> *The Proposer shall fill in this Form in accordance with the instructions. Apart from providing additional information, no alterations to its format shall be permitted and no substitutions shall be accepted.*

14. <b>Financial soundness:</b> Bidders shall provide documentary evidence, preferably in the form of latest available audited financial accounts proving that the total average annual turnover over each of the last two years exceeded the amount of U\$ 500,000.
15. <b>Previous experience:</b> Documentary evidence of a minimum of <b>3 purchase orders / contracts</b> awarded and served <b>within the past 3 years</b> proving relevant <b>international experience</b> in supplying the items/services offered in response to this RFP and/or items of similar nature and purpose. <b>At least one of the purchase orders / contracts shall be of an amount above U\$ 100,000.</b> Each purchase order / contract shall clearly indicate the type and quantities of items and technical specifications, contract amount, date, and customer’s current contact details for references to be sought.
Statement of Satisfactory Performance from 3 relevant Clients in supplying the items/services offered in response to this RFP and/or items of similar nature and purpose (please refer to section 5, point 16).

Joint Venture Partner Information Form (if Registered)<sup>9</sup>

Date: *[insert date (as day, month and year) of Proposal Submission]*  
RFP No.: *[insert number]*

Page \_\_\_\_\_ of \_\_\_\_\_ pages

1. Proposer’s Legal Name: <i>[insert Proposer’s legal name]</i>		
2. JV’s Party legal name: <i>[insert JV’s Party legal name]</i>		
3. JV’s Party Country of Registration: <i>[insert JV’s Party country of registration]</i>		
4. Year of Registration: <i>[insert Party’s year of registration]</i>		
5. Countries of Operation	6. No. of staff in each Country	7. Years of Operation in each Country
8. Legal Address/es in Country/ies of Registration/Operation: <i>[insert Party’s legal address in country of registration]</i>		
9. Bidders are kindly requested to submit the documentation required in Data Sheet number 26 (DS. no 26)		

<sup>9</sup> The Proposer shall fill in this Form in accordance with the instructions. Apart from providing additional information, No alterations to its format shall be permitted and no substitutions shall be accepted.

## Section 6: Evaluation Process and Evaluation Criteria

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RFP evaluation methodology will be based on a cumulative analysis scheme where a total score is obtained upon the combination of weighted technical and financial attributes. The weight of the technical proposal – 70% (700 points) and the weight of the financial proposal - 30% (300 points).

Total obtainable points–1000 (technical & financial)

Step 1: Prior to evaluation of the proposals, UNDP shall determine whether they are complete with respect to minimum documentary requirements, whether or not the Proposer is in the UN Security Council 1267/1989 Committee's list of terrorists and terrorist financiers, and in UNDP's list of suspended and removed vendors, whether the proposals are generally in order, whether proposal validity is respected, whether the full range of items is covered for the quoted lots, whether bidders are compliant with General Terms and Conditions and other. UNDP may reject any proposal at this stage.

Step 2: Following this, bidders will be evaluated against the mandatory technical requirements where pass/fail ratings will be applied (see section 7 below). Only proposals that pass all mandatory technical requirements will be considered for further technical scoring.

Step 3- Technical evaluation criteria (weighted) – maximum obtainable points - 700

Technical proposals must obtain minimum 490 points (70% of 700 points) to proceed to financial evaluation.

Step 4 - Financial evaluation (weighted) – maximum obtainable points by lot – 300:

Financial proposals are not to be opened until the technical proposals have been evaluated. Only proposals achieving minimum 490 points in the technical evaluation will be opened. Any proposals that do not meet the minimum technical score requirement will be rejected as being non-responsive (technically non-compliant).

The financial part will be evaluated independently as mentioned in the TOR. Total obtainable points per lot – 300. The maximum number of points will be assigned to the financial proposal resulting in the lowest cost. The points for other proposals will be assigned according to the formula:

$$\frac{(\text{max score} \times \text{lowest price proposal} (\$))}{\$ \text{ price of proposal}} = \text{score for price proposal} (x)$$

Financial proposals will be evaluated based on the total price per lot, i.e. the sum of all the items in the lot. Proposed discount schemes (sliding scales, kick-back bonuses and other) will not be included in the financial evaluation of the proposals. The total score for each vendor will be calculated by summing up technical score and financial score by lot.

## Section 7: Technical Proposal Form

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<p><b>TECHNICAL PROPOSAL FORMAT</b></p> <p><b>INSERT TITLE OF THE SERVICES</b></p>
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**Note: Technical Proposals not submitted in this format may be rejected. The financial proposal should be included in separate envelope.**

<b>Name of Proposing Organization / Firm:</b>	
<b>Country of Registration:</b>	
<b>Name of Contact Person for this Proposal:</b>	
<b>Address:</b>	
<b>Phone / Fax:</b>	
<b>Email:</b>	

<p><b>SECTION 1: EXPERTISE OF FIRM/ ORGANISATION incl. PERSONNEL (20 % of technical scoring)</b></p>
<p><i>This section should fully explain the Proposer’s resources in terms of personnel and facilities necessary for the performance of this requirement. All contents of this section may be modified or expanded depending on the evaluation criteria stated in the RFP.</i></p> <p><b>1.1 Brief Description of Proposer as an Entity:</b> Provide a brief description of the organization / firm submitting the proposal, its legal mandates/authorized business activities, the year and country of incorporation, types of activities undertaken, and approximate annual budget, etc. Include the total number of permanent staff employed by the proposer, and the number of permanent staff in each major division from the proposer’s organization chart. For any sub-contractor that constitutes more than 30% of the proposer’s financial offer, include the total number of permanent staff employed by that sub-contractor. Include reference to reputation, or any history of litigation and arbitration in which the organisation / firm has been involved that could adversely affect or impact the performance of services, indicating the status/result of such litigation/arbitration.</p> <p><b>1.2. Financial Capacity:</b> Provide the latest Audited Financial Statement (Income Statement and Balance Sheet) duly certified by a Public Accountant, and with authentication of receiving by the Government’s Internal Revenue Authority. Include any indication of credit rating, industry rating, etc.</p> <p><b>1.3. Track Record and Experiences:</b> Provide the following information regarding corporate experience within the last five (5) years which are related or relevant to those required for this</p>

Contract.

Name of project	Client	Contract Value	Period of activity	Types of activities undertaken	Status or Date Completed	References Contact Details (Name, Phone, Email)

1.4 Key Personnel for Training and Installation: Describe the overall management approach toward planning and implementing this activity. Include an organization chart for the management of the project describing the relationship of key positions and designations for the various requested services in the TOR.

**SECTION 2 - METHODOLOGY, APPROACH AND IMPLEMENTATION PLAN, INCLUDING TECHNICAL COMPLIANCE WITH EQUIPMENT SPECIFICATIONS (3Ca&b) (80% of technical scoring)**

*This section should demonstrate the Proposer's responsiveness to the TOR (Terms of Reference) by identifying the specific components proposed, addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; and demonstrating how the proposed methodology meets or exceeds the requirements.*

2.1. Approach to the Service/Work Required: Please provide a detailed description of the methodology for how the organisation/firm will achieve the Terms of Reference of the project, keeping in mind the appropriateness to local conditions and project environment. This section should include the proposer's point-by-point responses demonstrating compliance with the functional and technical specifications from Section 3. Screen shots of software and data/specification sheets for systems and hardware shall be included in the proposer's response where appropriate. **The proposer should note that methodology, approach and implementation plans are allocated 60 % of the technical scoring.**

Please see section on Technical Evaluation on p. 25 & 26 and the applicable scoring ratios.

2.2. Technical Quality Assurance Review Mechanisms: The methodology shall also include details of the Proposer's internal technical and quality assurance review mechanisms.

2.3 Implementation Timelines: The Proposer shall submit a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing in accordance with the requested services in the TOR.

2.4. Subcontracting: Explain whether any work would be subcontracted, to whom, how much percentage of the work, the rationale for such, and the roles of the proposed sub-contractors.

Special attention should be given to providing a clear picture of the role of each entity and how everyone will function as a team.

2.5. Risks / Mitigation Measures: Please describe the potential risks for the implementation of this project that may impact achievement and timely completion of expected results as well as their quality. Describe measures that will be put in place to mitigate these risks.

2.6. Reporting and Monitoring: Please provide a brief description of the mechanisms proposed for this project for reporting to the UNDP and partners, including a reporting schedule.

2.7. Anti-Corruption Strategy: Define the anti-corruption strategy that will be applied in this project to prevent the misuse of funds. Describe the financial controls that will be put in place.

2.8. Partnerships: Explain any partnerships with local, international or other organizations that are planned for the implementation of the project. Special attention should be given to providing a clear picture of the role of each entity and how everyone will function as a team. Letters of commitment from partners and an indication of whether some or all have successfully worked together on other previous projects is encouraged.

2.9 Statement of Full Disclosure: This is intended to disclose any potential conflict in accordance with the definition of “conflict” under Section 4 of this document, if any.

2.10 Technical Compliance- See Table Below: In addition to the full technical proposal for goods and services as described in 2.1, proposers must complete the below compliance/ non-compliance sheet for pass/fail ratings. Sections shaded in blue should be completed

## TECHNICAL COMPLIANCE: PASS/FAIL EVALUATION TABLE

### NETWORK EQUIPMENT AND HARDWARE

Equipment		Compliance with/ deviation from Technical Specifications in Section 3C	Comments/ Clarifications	Pass/Fail
a.	<b>Current Conditions Network – indicative items with minimum requirements</b>			
a.1	Automatic Weather Station (AWS) All-in-one Sensor			
a.2		Compliance with/ deviation from Technical Specifications in Section 3C	Comments/ Clarifications	Pass/Fail
	AWS Additional Sensors Minimum Specifications: see section 3C a.1.3.			
a.3	Data Collection and Transmission Unit for each AWS Minimum Specifications: see section 3C a.1.4			
a.4	Current Conditions Data Management System Minimum Specifications: see section 3C a.2			
b	<b>Severe Weather Nowcasting Network – indicative items with minimum requirements</b>	Compliance with/ deviation from Technical Specifications in Section 3C	Comments/ Clarifications	Pass/Fail
b.1.	LD Network Hardware Minimum Specifications: see section 3C b1.1			
b.2	Lightning Detection Sensor (LDS) Minimum Specifications: see section 3C b 1.2			

b.3	LDS Data Transmission Unit (DTU) for each LDS Minimum Specifications: see section 3C b 1.3			
b.4	Lightning Detection Data Management Solution Minimum Specifications: see section 3C.b 2			
c.	Weather Forecasting Solution – minimum requirements as listed in Section 3 C c	Compliance with/ deviation from Technical Specifications in Section 3C	Comments/ Clarifications	Pass/Fail
d.	Weather and Climate Data Display System – minimum requirements as listed in Section 3 C c	Compliance with/ deviation from Technical Specifications in Section 3C	Comments/ Clarifications	Pass/Fail

## Section 8: Financial Proposal Form<sup>10</sup>

The Proposer is required to prepare the Financial Proposal in an envelope separate from the rest of the RFP as indicated in the Instruction to Proposers.

The Financial Proposal must provide a detailed cost breakdown. Provide separate figures for each functional grouping or category.

Where requested and available from the proposer, the Price Schedule should include figures for both the purchase and the service options. UNDP reserves the option to either lease/rent or purchase outright the equipment through the Contractor.

**Please note that Sections A, B and C will be utilized to conduct the Financial Evaluation.** Section D is an additional section which should include indicative or ceiling pricing but will not be assessed as part of the Financial Evaluation. Furthermore it should be noted that at the time of actual requests, additional services such as AWS or LDS site hosting fees, telecommunications, power or physical security may be requested and the Proposer should confirm the ability to provide these services in the Technical Proposal section of the offer.

The format shown on the following pages is suggested for use as a guide in preparing the Financial Proposal. The format includes specific expenditures, which may or may not be required or applicable but are indicated to serve as examples. Please complete the areas highlighted in blue.

**N.B. The Total Prices in Tables A, B and C are based on a case scenario of 30 AWSs and 9 LDNs delivered to Zambia.**

### A. COST OF GOODS – LOT BREAKDOWN: Lots a - b

NETWORK EQUIPMENT AND HARDWARE							
Equipment			Unit Price applicable to 1-10 AWS	Unit Price applicable to 11-50 AWSs	Unit Price applicable to 51+ AWSs	Case Scenario Quantity: 30 AWS	Total Price = Unit Price *Quantity
a.		Current Conditions Network – indicative items with minimum requirements					
AWS Hardware	a.1	Automatic Weather Station (AWS) All-in-one Sensor (Pricing must include all sensors from the Basic Weather Sensors as defined in section 3C a 1.1 and 1.2)					

<sup>10</sup> No deletion or modification may be made in this form. Any such deletion or modification may lead to the rejection of the Proposal.

a.2	AWS Additional Sensors Minimum Specifications: see section 3C a.1.3.		1-10	11-50	51 +	Case Scenario Quantity: 30	Total Price = Unit Price *Quantity
	Tipping Bucket Precipitation Sensor						
	Soil Moisture Sensor						
	Soil Temperature Sensor						
	Leaf Wetness Sensor						
	Pyrgometer						
			1-10	11-50	51 +	Case Scenario Quantity:3 0	Total Price = Unit Price *Quantity
a.3.	Data Collection and Transmission Unit for each AWS Minimum Specifications: see section 3C a.1.4						
a.4	Installation Kit: The prices should also include all other miscellaneous equipment expenses needed to establish a functional system at the installation site according to the specifications in Section 3C.a.1.5	All hardware required to mount the AWS on an existing cell tower					
		AND/OR: the mast/tower itself and the requisite security fencing, etc if the proposer elects to propose a system that is not cell tower mounted					
b	<b>Severe Weather Nowcasting Network – indicative items with minimum requirements</b>		Unit Price applicable to 1-10 LDSs and DTU’s	Unit Price applicable to 11+LDSs and DTU’s		Case Scenario Quantity: 9 LDS	Total Price = Unit Price *Quantity
b.1.	Lightning Detection Sensor (LDS) Minimum Specifications: see section 3C b 1.2						

b.2	LDS Data Transmission Unit (DTU) for each LDS Minimum Specifications: see section 3C b 1.3					
b.3	Installation Kit: This should also include all other miscellaneous equipment expenses needed to establish a functional system at the installation site according to the specifications in Section 3C.b.1.4	All hardware required to mount the LDS on an existing cell tower				
		AND/OR: the mast/tower itself and the requisite security fencing, etc if the proposer elects to propose a system that is not cell tower mounted.				
<b>FCA CHARGES, if any</b>						
<b>Freight charges to Zambia</b>						
<b>Total DAP Zambia</b>						

**B. NETWORK SOFTWARE AND TECHNICAL SERVICES COSTS BREAKDOWN**

CCN			
Option 1	One-time	Monthly	Annual
Primary CCDMS Service			
Backup Data Storage Software: incl annual software maintenance charge in 3 <sup>rd</sup> column			
Backup Data Storage Hardware: incl annual hardware maintenance charge in 3 <sup>rd</sup> column			
Option 2			
Primary CCDMS Software: incl annual software maintenance charge in 3 <sup>rd</sup> column			
Primary CCDMS Hardware: incl annual hardware maintenance charge in 3 <sup>rd</sup> column			
Backup Data Storage Service			
SWNN			

<b>Option 1</b>	<b>One-time</b>	<b>Monthly</b>	<b>Annual</b>
Primary LDN DMS Service			
Backup Data Storage Software: incl annual software maintenance charge in 3 <sup>rd</sup> column			
Backup Data Storage Hardware: incl annual hardware maintenance charge in 3 <sup>rd</sup> column			
<b>Option 2</b>			
Primary LDN DMS Software: incl annual software maintenance charge in 3 <sup>rd</sup> column			
Primary LDN DMS Hardware: incl annual hardware maintenance charge in 3 <sup>rd</sup> column			
Backup Data Storage Service			
<b>WFS</b>			
<b>Option 1</b>	<b>One-time</b>	<b>Monthly</b>	<b>Annual</b>
WFS Service			
<b>Option 2</b>			
WFS Software: incl annual software maintenance charge in 3 <sup>rd</sup> column			
WFS Hardware: incl annual hardware maintenance charge in 3 <sup>rd</sup> column			
<b>WCDDS</b>			
<b>Option 1</b>	<b>One-time</b>	<b>Monthly</b>	<b>Annual</b>
WCDDS Service			
<b>Option 2</b>			
WCDDS Software: incl annual software maintenance charge in 3 <sup>rd</sup> column			
WCDDS Hardware: incl annual software maintenance charge in 3 <sup>rd</sup> column			

### C. FURTHER SERVICES COST BREAKDOWN:

The Proposers are requested to provide the cost breakdown for the services (primarily listed under sections e & f) please complete the areas highlighted in blue. As mentioned above, the table reflects a case scenario of 30 AWSs and 9 LDNs for Zambia.

<b>SERVICES:</b>			<b>Remuneration per Unit</b>		<b>Total no. of Units</b>	<b>Total Rate</b>
<b>Network Design</b> <b>See section 3C e</b>	Current Conditions Network	Project Design		Ea	1	

	(CCN) Design and Hosting Plan	Site Survey		Ea Site	30	
	Severe Weather Nowcasting Network (SWNN) Design and Hosting Plan	Project Design		Ea	1	
		Site Survey		Ea Site	9	
	Project Management Plan			Ea	1	
<b>Installation/ Implementation (not incl. equipment costs)</b> See section 3C e	CCN	AWS		Pr Site	30	
		CCDMS		Pr Day		
	SWNN	LDS		Pr site	9	
		LDN DMS		Per Day		
	WFS			Per Day		
	WCDDS			Per Day		
<b>Training</b> See section 3C e	CCN Installation and Operation Training			Pr Day	3 Days	
	SWNN Installation and Operation Training			Pr Day	3 Days	
	WFS Operation Training			Pr Day	2 Days	
	WCDDS Operation Training			Pr Day	2 Days	

<b>Network Hardware Warranty (annual cost)</b>	AWS Hardware (after one year warranty period has expired)		Pr unit	30	
	LDN Hardware (after one year warranty period has expired)		Pr unit	9	

**D. OPTIONAL SERVICES AND INDICATIVE/ CEILING PRICING**

<b>Optional Pricing Elements</b>	1. Annual maintenance site visit		Pr site		
	2. Unscheduled site visit		Pr site		
	3. Software development, customization and integration		Pr hour		

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## Section 9: Contract Template

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**THIS IS UNDP'S TEMPLATE FOR CONTRACT FOR THE PROPOSER'S REFERENCE. ADHERENCE TO ALL TERMS AND CONDITIONS IS MANDATORY.**

### **LONG TERM AGREEMENT FOR THE PROVISION OF GOODS & SERVICES**

TO THE UNITED NATIONS DEVELOPMENT PROGRAMME

This Long Term Agreement is made between the United Nations Development Programme, a subsidiary organ of the United Nations, having its headquarters at 1 UN Plaza, New York, NY 10017 (hereinafter "UNDP") and \_\_\_\_\_ (hereinafter called "Contractor") with its headquarters at \_\_\_\_\_.

WHEREAS, UNDP desires to enter into a Long Term Agreement for the provision of services by the Contractor to UNDP, pursuant to which UNDP country offices world-wide can conclude specific contractual arrangements with the Contractor, as provided herein;

WHEREAS pursuant to the Request for Proposal .....[to complete] the offer of the Contractor was accepted;

NOW, THEREFORE, UNDP and the Contractor (hereinafter jointly the "Parties) hereby agree as follows:

#### **Article 1: SCOPE OF WORK**

1. The Contractor shall provide the types of services and deliverables, which are listed in Annex 1 hereto ("Services/Terms of Reference"), as and when negotiated by UNDP headquarters or a UNDP country office and reflected in a contract for professional services, in the form attached hereto as Annex 2.
2. Such Services shall be at the discount prices listed in Annex 3. The prices shall remain in effect for a period of two years from Entry into Force of this Agreement.
3. UNDP does not warrant that any quantity of Services will be purchased during the term of this Agreement, which shall be for two years.

#### **Article 2: CHANGES IN CONDITION**

4. In the event of any advantageous technical changes and/or downward pricing of the Services during the duration of this Agreement, the Contractor shall notify UNDP immediately. UNDP shall consider the impact of any such event and may request an amendment to the Agreement.

**Article 3: CONTRACTOR'S REPORTING**

5. The Contractor will report semi-annually to UNDP on the Services provided to UNDP, including its country offices.

**Article 4: GENERAL AND SPECIAL TERMS AND CONDITIONS**

6. The standard UNDP General Conditions for Goods, attached as Annex 4, shall apply to this Agreement, and any subsequent contracts concluded in accordance with paragraph 1 above.

**Article 5: ACCEPTANCE**

7. This Agreement supersedes all prior oral or written agreements, if any, between the Parties and constitutes the entire agreement between the parties with respect to the provision of the Services hereunder.

8. This Agreement shall enter into force on the date of the last signature by the representatives of the Parties and shall remain in force for a period of two years, and may be extended for [one additional] year by mutual agreement of the Parties.

IN WITNESS WHEREOF, the duly authorized representative of the PARTIES have signed this agreement.

For and on behalf of:

UNITED NATIONS  
DEVELOPMENT PROGRAMME

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Date: \_\_\_\_\_

Date: \_\_\_\_\_



**UNDP  
GENERAL CONDITIONS OF CONTRACT FOR MIXED SERVICES & GOODS**

**See attached pdf**