



REQUEST Call FOR PROPOSAL – Data Science Consultant

The Request for Proposal reference: [RFP-PS-1044](#)

SUMMARY

NRC is looking for a qualified person /entity to lead the development and implementation of the AI-powered components of the Early Warning and Alert System for the Sudan RRM.

Deadline for application is 11th of May 2025 @ 16:00 (GMT +2)

The consultant is/are envisaged to be contracted for the period of consultancy .

PROCESS FOR APPLICATION

We are opened to provide further information (background of the research, generic terms & conditions, information on award process) upon request.

- Deadline for submission: **11th of May 2025 @ 16:00 (GMT +2)**

Complete **Proposal documents must be submitted by EMAILS** Email for submission:

SD.procurement@nrc.no

CONTENT OF REQUEST FOR PROPOSAL

- Terms of reference
- How to Apply
- Annex 1: Applicant checklist

Type of evaluation	Data Science Consultant
Project locations:	Entire Sudan:
Thematic areas	Given Sudan’s dynamic and rapidly evolving context, continuous monitoring is essential to ensure RRM partners are prepared and able to respond effectively. The RRM requires a strengthened system to anticipate, monitor, and respond to rapid-onset emergencies, including conflict-induced displacement, natural disasters, and public health crises. To address this, NRC will develop an enhanced Early Warning and Alert System (EWAS) that consolidates multiple information streams, monitors evolving risks, and provides rapid and actionable alerts to support response planning and coordination. This mechanism will provide timely, reliable, and actionable insights to support evidence-based decision-making and enable an effective and efficient RRM

Overall objective of the project

The Data Science consultant will lead the development and implementation of the AI-powered components of the Early Warning and Alert System for the Sudan RRM. This role focuses on transforming diverse data sources into actionable insights through innovative AI approaches, enabling a timely response to emergencies in Sudan.

I. Background

Context information

The Rapid Response Mechanism (RRM) is an ECHO-funded project implemented in partnership with Danish Refugee Council. It provides timely, life-saving assistance to populations affected by new emergency events across Sudan. The RRM primarily responds to conflict-driven displacements, flooding, and health outbreaks through multi-sectoral interventions.

Given Sudan's dynamic and rapidly evolving context, continuous monitoring is essential to ensure RRM partners are prepared and able to respond effectively. The RRM requires a strengthened system to anticipate, monitor, and respond to rapid-onset emergencies, including conflict-induced displacement, natural disasters, and public health crises. To address this, NRC will develop an enhanced Early Warning and Alert System (EWAS) that consolidates multiple information streams, monitors evolving risks, and provides rapid and actionable alerts to support response planning and coordination. This mechanism will provide timely, reliable, and actionable insights to support evidence-based decision-making, and enable an effective and efficient RRM.

2. Summary

The Data Science consultant will lead the development and implementation of the AI-powered components of the Early Warning and Alert System for the Sudan RRM. This role focuses on transforming diverse data sources into actionable insights through innovative AI approaches, enabling timely response to emergencies in Sudan.

3. Scope of Work

- Designing and implementing machine learning models for crisis detection and early warning
- Developing pattern recognition algorithms for identifying crisis signals from satellite imagery, media/social media, weather data, and conflict indicators
- Creating data processing pipelines to integrate multiple data sources (field reports, satellite imagery, social media, weather forecasts, conflict data)
- Implementing AI models that can function with limited training data in the Sudanese context
- Validating and testing models with humanitarian datasets specific to Sudan
- Comprehensively documenting model performance and limitations
- Building the initial dashboard and data visualization components
- Optimizing models for field deployment under Sudan's infrastructure constraints

4. Key Deliverables and Timeline

Deliverable	Description	Timeline
Event Alert System	AI-powered system to detect events as they happen and send alerts to stakeholders (Phase 1, Stage 1)	End of Month 2
Data Processing Pipeline	Functional pipeline for ingesting and preprocessing multiple data sources	End of Month 3
Integration of Situation Analysis Tool	Integrating existing AI-powered secondary data review system (Phase 1, Stage 3)	End of Month 4
Event Likelihood Models	Predictive models for potential emergency events (Phase 1, Stage 2)	End of Month 6
Web Interface - Alpha	Initial dashboard presenting comprehensive analysis in digestible format (Phase 2, Stage 2)	End of Month 7
Risk Level Mapping	System for categorizing and mapping risk levels (Phase 2, Stage 3)	End of Month 9
Predictive Model Integration	Integrated model combining conflict, natural disaster, and health emergency predictions (Phase 3, Stage 1)	End of Month 10
Severity Classification System	Model to classify data by severity and disaster type (Phase 3, Stage 2)	End of Month 12
Final Dashboard	Complete dashboard with visualization of all data streams at subnational level	End of Month 14
Model Refinement	Improved model accuracy with additional data sources (Phase 3, Stage 3)	End of Month 16
Knowledge Transfer	Documentation and training for technical staff	Throughout Months 15-18

5. Required Qualifications

Essential

- 5+ years experience in applied machine learning/data science
- Strong programming skills in Python and ML frameworks (TensorFlow/PyTorch)
- Experience with NLP for media monitoring and computer vision for satellite imagery analysis
- Knowledge of predictive modeling for crisis/conflict scenarios
- Experience working with limited and messy datasets typical in humanitarian contexts
- Master's degree or higher in Data Science, Computer Science, or related field
- Understanding of responsible AI principles and ethical considerations in crisis contexts

Preferred

- Experience with multimodal data fusion (combining satellite imagery, text, and structured data)
- Prior work in humanitarian or conflict settings, particularly in East Africa
- Experience with real-time alert systems
- Knowledge of GIS and spatial data analysis
- Familiarity with cloud computing infrastructure for model deployment

6. Application Requirements

Interested consultants should submit:

1. A technical proposal (max 5 pages) outlining:

- o Proposed methodology for implementing the three-phase approach
 - o Experience with similar AI-powered early warning systems
 - o Approach to handling data limitations in the Sudanese context
2. CV/resume highlighting relevant experience
 3. Financial proposal
 4. Two examples of previous relevant work (dashboards, prediction models, or GitHub repositories)

7. Evaluation Criteria

Applications will be evaluated based on:

- Technical expertise in crisis-relevant AI applications (40%)
- Quality and feasibility of proposed methodology (30%)
- Understanding of Sudan's context and humanitarian challenges (15%)
- Value for money (15%)

8. Working Arrangements

- The consultant will work closely with the Global AI team and the data engineering/DevOps specialist
- Primarily remote work
- Regular coordination with RRM consortium partners
- All code and documentation will be stored in the project's version control system
- The consultant will report to the AI Lead

9. Intellectual Property

All models, code, and documentation developed during this consultancy will become the property of NRC and will be made available to consortium partners. Selected components may be made available under appropriate open-source licenses as determined by the project leadership.

10. Application Deadline

Applications must be submitted to [sd.procurement@nrc.no] by [11th of May 2025].

Interview dates:

Bids must include the following:

- The proposal includes outline of the evaluation framework and methods, including comments on the TOR, proposed time frame, and work plan (bids over 3 pages will be automatically excluded).
- Proposed evaluation budget
- CVs

To: Norwegian Refugee Council

Sir / Madam, We offer to deliver the service in accordance with all requirements of the current Request for Proposal, Conditions of Contract and any other Binding requirements accompanying this Bid. We, the undersigned, verify that we are in compliance with all applicable laws and regulations, and meet the ethical standards as listed above or positively agree to these ethical standards and are willing to implement necessary changes in the organization.

This Bid signed by our authentic representative and your written award of it shall constitute the formation of a binding contract between us.

Registered company name:	
Any other trading names:	
Any associated companies (cross holding/ joint ownership/ shareholding/ etc.)	
Name of Signatory:	Date of Signing:
Title of Signatory:	Name of Bidder:
Signature & stamp:	Tel N°:
	Email:
	Address:

Bank name (to be used for this contract)	
Account number	

Questions	Answers
What is the currency of the offer? (SDG, USD, EUR , other...) Note that NRC will favour quotes in SDG. Please read below regarding USD payments. DO NOT PROVIDE QUOTES IN BOTH SDG AND USD CURRENCIES.	
Please confirm your offer inclusive Net price after the deduction of discounts	
Please confirm your prices	

include all taxes and fees (net prices): (If not, please explain and detail the taxes & fees)	
If your offer is in USD => payment will be made by bank transfer. <ul style="list-style-type: none"> - Do you have a EUR account in Sudan? if YES, then in which bank. - Do you have a EUR account abroad? if YES, then in which bank. (Please provide bank details for each account with Company name)	
Do you accept payment after completion of Service? BY Instalment within 30 days of receipt of the invoice	
What is the validity period of your offer? (In calendar days) (Preferable 90 days)	

4 - Accepted methods for submission of quotation/offer:

We recommend you fill up this Request for Quotation directly on your computer. You can also print it and fill it up by hand if you have not access to a computer. You can submit the price offer by using the table on page 2, or by using your own proforma document.

Your quotation / offer **must be signed and stamped** on all pages (including the present Request for Quotation).

4 - Your Company details:

- **General information**

Name of the company		
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Name of the owner(s) Date of birth of the owner(s) (Mandatory for screening)		
Address of the company		
Name of contact person		
Position		
Email		
Phone		

- **Company bank account details:**

Beneficiary name:

Beneficiary account no.:

Beneficiary Bank:

Bank branch:

SWIFT:

IBAN:

Bank address:

- **References**

Please provide details of at least 5 client references whom NRC may contact, preferably from INGOs and UN agencies, for similar service:

Client/company name	Contact person	Phone	Email	Contract details (works, location, size, value, etc)
1.				
2.				
3.				
4.				
5.				
...				

5 - Mandatory documents to attached to your quotation / offer:

Please check that you are providing all of the below mentioned documents

Mandatory documents	Checked (Y/N)
Certified copy of accreditation as a law firm - <u>Compulsory</u>	
Copy of VAT registration - <u>Compulsory</u>	
References from 2 major organizations or companies, especially international NGOs, during the last two or three years. - <u>Compulsory</u>	
Company Profile - <u>Optional</u>	
NRC Request for Quotation (filled up, signed and stamped) <ul style="list-style-type: none">- You can use the RFP table above- Or any other format of your choice, but specifying all items in the RFP list. You must Sign and Stamp each page.	
Technical proposal (maximum 5 pages), including: <ul style="list-style-type: none">• Proposed methodology for the three-phase approach• Experience with similar AI-powered early warning systems• Approach to handling data limitations in Sudan	
CV/resume highlighting relevant experience	
Two examples of previous relevant work (e.g., dashboards, prediction models, GitHub repositories)	

You can also attach additional documents such as photos, company profile, certifications...

6 - Other information:

Payment will be made by bank transfer.

All suppliers doing business with NRC should maintain high standards on ethical issues, respect and apply basic human and social rights, ensure non-exploitation of child labour, and give fair working conditions to their staff. NRC reserves the right to reject quotations provided by suppliers not meeting these standards.

Vendors doing business with NRC will be screened on anti-corruption due diligence before NRC confirms an order or contract.

NRC aims to purchase products and services that the minimum environmental impact. Environmental considerations form part of the NRC selection criteria, and NRC reserves the right to reject quotations provided by suppliers not meeting these standards.

NRC is obliged to ensure that its procurement decisions are clearly justified and documented and keeping within the Donors mandatory principles. In that regard, full and on-the-spot access must be granted to representatives of NRC, the Donor or any organisation or person mandated by it, to premises belonging to NRC or its contractors. The right to access shall include all documents and information necessary to assess, or audit the implementation of the contract

NRC reserves the right to accept or reject the whole or part of your quotation based on the information provided. Incomplete quotations which do not comply with our conditions will not be considered.

Shortlisted suppliers may be required to submit samples of each item. Please be sure to have all samples available at short notice, and wait for a response from NRC if you have been shortlisted.

Ethical Standards Declaration for all Supply, Service and Works Contractors

We, the undersigned, ('we', 'our' or 'us') **CONSIDERING THAT:**

FIRST, we are bidding for, or entering into, a contract with the Norwegian Refugee Council (**NRC**) to supply goods, services or works to NRC ('**the Contract**').

SECOND, we understand that as a humanitarian organisation, NRC expects its suppliers and contractors to have high ethical standards.

THIRD, we understand that NRC therefore needs us to confirm that we adhere to the required ethical standards ('**the ethical standards**') by signing this declaration ('**the Declaration**').

THEREFORE, we **DO HEREBY DECLARE** as follows:

1. Declaration concerning compliance with applicable laws and these ethical standards

We declare that we shall:

- a. Meet the ethical standards in this declaration ('ethical standards')
- b. Ensure that any party representing us, including but not limited to:
 - board members
 - directors
 - employees
 - contractors or sub-contractors, and their employees
 - consultants and sub-consultants, and their employees;
 - other legal representatives
 ('our Representatives') are aware of and comply with these ethical standards.

In the event that we, or our Representatives, do not meet the ethical standards at present, we shall:

- a. Explain to NRC in what way we do not currently meet the ethical standards
- b. Agree a plan and timeline with NRC to implement changes that allow us to meet the ethical standards
- c. Provide regular updates to NRC on the implementation plan.

2. Declaration concerning status

We hereby declare that neither we, nor to the best of our knowledge our Representatives, are in any of the following situations:

- 1.2. Are involved in any form of fraud, corruption, collusion, coercive practice, bribery, involvement in a criminal organisation or other illegal activity
- 1.3. Are insolvent, in receivership, bankrupt, or being wound up
- 1.4. Have suspended activities

- 1.5. Are subject to legal proceedings related to 2.1
- 1.6. Have at any time been found guilty and sentenced by a court, whether in the country of employment or abroad, for a criminal offence in respect of children or vulnerable adults
- 1.7. Are engaged in:
 - terrorism or the material support of terrorism
 - the sale or manufacture, either directly or indirectly, of anti-personnel mines or any components produced primarily for the operation thereof
 - the sale or manufacture, either directly or indirectly, of weapons
 - the production of alcohol, tobacco, or pornography.

2. Declaration concerning Conflicts of Interest

We declare that neither we nor, to the best of our knowledge, our Representatives have an undisclosed conflict of interest with NRC, in accordance with [NRC's Conflict of Interest Policy \(the Policy\)](#).

Where any potential conflict of interest exists between our Representatives and NRC or any NRC staff member, we shall notify NRC in writing of the potential conflict using [Form F in the Policy](#). We understand that the Policy and the Form is available on [NRC's website](#) or that we can contact the NRC Procurement focal point, as mentioned in the tender documentation. NRC shall then determine whether action is required.

A conflict of interest can be due to a relationship with an NRC staff member such as family or friends.

We understand that if we fail to report a potential conflict of interest and are later found to have a conflict of interest, we may be removed from the NRC vendor database.

3. Declaration concerning compliance with national law

We declare that we and, to the best of our knowledge, our Representatives:

- 3.1. comply with all applicable laws and regulations in effect in the country or countries where the Contract will be carried out.
- 3.2. comply with all applicable export laws concerning the country or countries where the Contract will be carried out.
- 3.3. are registered with the relevant government authority with regard to taxation for the duration of the Contract.
- 3.4. pay taxes according to all applicable national laws and regulations for the duration of the Contract.

4. Declaration concerning compliance with labour standards

We declare that we and, to the best of our knowledge, our Representatives:

We declare that we and, to the best of our knowledge, our Representatives comply with applicable national labour law standards and the International Labour Organisation Declaration on Fundamental Principles and Rights at Work.

Specifically, we declare that we and, to the best of our knowledge, our Representatives comply with the following minimum labour standards:

4.1. Working Conditions

- a. All workers receive a contract of employment that is written in a language they understand.
- b. All workers are free to leave after giving reasonable notice.
- c. All workers have the right to join or form trade unions of their own choosing and to bargain collectively.
- d. No worker is required to lodge 'deposits' or identity papers or immigration documents in order to obtain employment.

4.2. Wages and benefits

- a. Wages and benefits paid for a standard working week meet, at a minimum, national legal standards or industry benchmark standards, whichever is higher. Wages are always sufficient to meet basic needs.

- b. No deductions from wages are made as a disciplinary measure.

4.3. Working time

- a. Working hours comply with national laws and benchmark industry standards, whichever affords greater protection. Whenever possible working hours do not exceed 48 hours per week (8 hours per day).
- b. Workers are provided with at least one day off for every 7-day period.

4.4. Health and safety

- a. Steps are taken to prevent accidents and injury to health arising out of, associated with, or occurring in, the course of work, by minimizing, so far as is reasonably practicable, the causes of hazards inherent in the working environment.
- b. Workers receive regular and documented health and safety training, and such training is repeated for new workers.
- c. Workers have access to clean toilet facilities and to potable water, and, if appropriate, sanitary facilities for food storage is provided.
- d. Accommodation, where provided, is clean, safe and adequately ventilated.

4.5. Discrimination and abuse

- a. No worker is forced, bonded or an involuntary prison worker.
- b. There is no discrimination at the workplace based on ethnic background, religion, age, disability, gender, marital status, sexual orientation, union membership or political affiliation.
- c. Measures are in place to protect workers from sexually intrusive, threatening, insulting or exploitative behaviour, and from discrimination or termination of employment on unjustifiable grounds, e.g. marriage, pregnancy, parenthood or HIV status.
- d. Physical abuse or punishment, or threats of physical abuse, sexual or other harassment and verbal abuse, as well as other forms of intimidation, are prohibited.

4.6. Persons under 18

- a. No persons under the age of 18 shall be engaged in work which is hazardous to their health or safety, including night work.
- b. The working hours and nature of work of any worker who is under the age of 18 shall not interfere with their opportunity to complete his or her education.

5. Declaration concerning the environmental standards

We declare that we and, to the best of our knowledge, our Representatives comply with applicable national environmental law standards and with international environmental standards, to the greatest extent possible.

Specifically, we declare that we and, to the best of our knowledge, our Representatives adhere to the following standards:

- 5.1. We respect national and international environmental legislation and regulation.
- 5.2. We ensure that production and extraction of raw materials for production does not contribute to the destruction of the resources and income base for marginalised populations, such as in claiming large land areas or other natural resources on which these populations are dependent.
- 5.3. We take environmental measures into consideration throughout the production and distribution chain ranging from the production of raw material to the consumer sale. This includes reasonable steps to minimise negative environmental impacts (e.g. emissions, water usage, waste) and to use - where possible - sustainable resources. Local, regional and global environmental aspects shall be considered. The local environment at the production site will not be exploited or degraded by pollution and waste.
- 5.4. We carefully manage hazardous chemicals and other substances in accordance with documented safety procedures.

6. Declaration concerning protection from sexual exploitation and abuse

We and, to the best of our knowledge, our Representatives comply with international standards related to protection from sexual exploitation and abuse (PSEA) and sexual harassment.

Specifically, we declare that we and, to the best of our knowledge, our Representatives adhere to the following standards:

- 6.1. We take sexual misconduct seriously and ensure that any employee found to have carried out sexual misconduct will be subject to disciplinary action.

- 6.2. We will ensure, that none of our employees engage in any sexual activity with persons (adult or child) in relation with this contract regardless of the age of majority or consent locally.
- 6.3. We will ensure that none of our employees produce, procure, distribute or use sexually explicit material in any activities under the Contract or on any sites used under the Contract.
- 6.4. We will ensure that none of our employees will exchange money, employment, goods or services for sex, including sexual favours or other forms of humiliating, degrading, or exploitative behaviour. This prohibition extends to any use of sex trade workers. If any sexual misconduct is found to have taken place, such employees face disciplinary action.
- 6.5. We shall report any incident or complaint of sexual misconduct or child abuse related to the activities carried out under the Contract through NRC's PSEA and Safeguarding Unit at psea@nrc.no.
- 6.6. We shall report any known or reported sexual relationship between our employees and NRC staff to NRC.

7. Declaration concerning protection of children

We declare that neither we nor, to the best of our knowledge, our Representatives are engaged in any practice inconsistent with the rights set forth in the Convention on the Rights of the Child. We commit to upholding international and national laws and policies regarding child safeguarding.

Specifically, we declare that we and, to the best of our knowledge, our Representatives adhere to the following standards:

- 7.1. We support and protect the complainant, survivors and witnesses of any raised incidents or complaints of sexual misconduct or child abuse.
- 7.2. We will ensure, that our employees will not abuse or exploit children or act in a manner that may place a child at risk of harm.
- 7.3. We will ensure that our employees are not left alone with children.
- 7.4. We will ensure our employees will not ask children for personal contact details without a valid reason to do so.
- 7.5. We listen, to the best of our ability, to children's views and opinions and treat boys and girls in a manner that is respectful of their rights and dignity during the performance of the Contract.

7.6. We shall report any suspicion of child safeguarding concerns through the Complaints and Feedback Mechanism, provided by the NRC contract focal point and at psea@nrc.no.

8. Declaration concerning anti-human trafficking

We declare that neither we nor, to the best of our knowledge, our Representatives are engaged in trafficking in persons as defined in the protocol to Prevent, Suppress and Punish Trafficking in Persons or the UN Convention against Transnational Organized Crime.

Specifically, we declare that we and, to the best of our knowledge, our Representatives adhere to the following standards:

- 8.1. We do not solicit persons for the purpose of employment, or offer employment by means of materially false or fraudulent pretences, representations, or promises.
- 8.2. We do not charge employees recruitment fees.
- 8.3. We do not provide or arrange housing for employees that does not meet host country housing and safety standards.
- 8.4. We commit to report any suspected violations of this clause to NRC immediately.
- 8.5. We commit to make our Representatives aware of the trafficking related prohibitions outlined above and share the Global Human Trafficking Hotline Information with them (1-844-888-FREE, help@befree.org).

9. General

We understand that:

- 9.1. The Declaration will be kept on file for a period of 10 years.
- 9.2. The Declaration will be updated every year or more often as appropriate.
- 9.3. We must inform NRC immediately in the event that there is a change to the Declaration.
- 9.4. NRC may perform checks to verify that the ethical standards are adhered to and shall be granted reasonable access to our premises and to our documentation, computer systems etc, in order to be allowed to do so.
- 9.5. In the event that NRC deem that we fail to meet or are not taking appropriate steps to meet, the ethical standards, NRC may immediately terminate any and all contracts and agreements we have with them and at no cost to NRC.

10.

Requirement to notify NRC

We shall immediately notify NRC through the Complaints and Feedback Mechanism, provided by the NRC contract focal point if:

- 10.1. Any allegations of alleged corruption, sexual exploitation or abuse, or child abuse are made against us or, to the best of our knowledge, our Representatives, during the Contract, whether relating to the Contract or not.
- 10.2. Any allegations are made, or any changes occur, in relation to any of the declarations made herein

Signed on our behalf as follows:

Signature	
Name	
Position	
Date	
Place	