

Technical Consultancy - Agriculture Risk Management and Food Security in the Sahel

Background

The **Centre for Disaster Protection** was launched by the UK Prime Minister in July 2017 to strengthen resilience in developing countries through better preparedness and planning backed by risk-based financing arrangements. The Centre is funded with UK aid from the UK government.

The Centre for Disaster Protection works to change how the world prepares and pays for disasters. Identifying, planning for and financing disasters before they strike saves lives, reduces suffering and protects livelihoods and economies, especially for the poorest and most vulnerable communities. The Centre brings countries together with international development, humanitarian and private sector organisations to find solutions and advocate for change. We find ways to stop disasters devastating lives by supporting countries and the international system to better manage risks. To do this, the Centre provides advisory services, builds knowledge, catalyses innovation and creates partnerships across the development, humanitarian and financial sectors.

With covid-19, the world is more aware than ever of the importance of being prepared and working together to address risks. The Centre's work has never been more crucial. With a recent funding uplift from the UK government to mid-2025, the Centre is entering a new period of organisational growth, evolving beyond its start-up phase to tackle the increasingly urgent impact of climate change and frequency of disasters around the world.

The Centre's technical work is focused on cross-cutting goals as set out in [our five-year strategy](#) (2019-2024):

1. **Advice – quality assurance and advisory services and training:** We will have a respected and widely used quality assurance function that has increased the quantity and quality of risk financing products and services. Our effective technical assistance and capacity building will have supported high risk, vulnerable countries to make better disaster risk management decisions through knowledge exchange and genuine skills transfer.
2. **Evidence and Learning:** We will be internationally recognised as driving change through evidence, experimentation and learning which will strengthen the global evidence base on disaster risk financing.
3. **Advocacy and Influencing:** Through advocacy and influencing and being a positive disrupter, we will have improved the quality and quantity of disaster risk financing through the multilateral system.

Additionally, we are focused on building effective systems and processes on people and operations to support the Centre to rapidly yet strategically scale and grow in a way that promotes diversity, equity and inclusion and ensures the organisation is a great place to work.

The Centre is setting up and overseeing a new project under which the Centre will be working alongside the World Bank in support of five governments in the Sahel region (Burkina Faso, Chad, Mali, Mauritania, and Niger) to provide technical assistance, capacity building and evidence

support to a second phase of implementation of the FCDO-funded Sahel Adaptive Social Protection Programme (SASPP).

The Centre's Managing Agent is DAI Global UK Ltd (DAI). and DAI are now seeking to engage a supplier for a **Technical Consultancy in the area of Agriculture Risk Management and Food Security**.

The consultancy will form part of the Centre's key forthcoming project to conduct systematic evaluations of triggers for droughts and floods for shock adaptive social protection programmes in the Sahel. The Centre's focus will be on how funding can be tied to pre-agreed "triggers" so that social protection programmes can be activated or implemented before hazards (like drought) become disasters (like famine). We expect the overall project to involve a combination of physical science, development economics, and public financial management and be a unique learning opportunity. The overall project is expected to run from mid-2022 to December 2026.

Delivering this project will require a high degree of coordination across the across the many internal and external stakeholders necessary to deliver its objectives. These include the Centre's multi-disciplinary team, the Centre's support team managing the Technical Assistance Facility (TAF) in DAI, external consultants (including staff and consultants of DAI), institutional partners at international level, FCDO (the donor), the World Bank, and country governments (core delivery partners). Delivery will also rely on consultants and partners at country-level.

The assignment

The Centre seeks a Technical Consultant (individual or team) to conduct systematic evaluations of the appropriateness and accuracy of different triggers to signal crop yield reduction and further food security impacts following the occurrence of droughts and floods to activate Adaptive Social Protection-based response in these five Sahel countries. The Technical Consultant will have the following responsibilities for delivering the trigger studies in each country.

1. A review of the existing work on using data to approximate the occurrence of droughts and/or floods should be conducted. This should include both academic and applied research, including the use of indicators for index insurance schemes and for early warning purposes. This activity should be focused on the country in question or at least the sub-region of the Western Sahel. The purpose of the literature review is to extract evidence of initiatives (previous and ongoing) and lessons learned applying triggers in an adaptive social protection context following agricultural shocks.
2. A landscaping and quality review of available yield and food security data in each country. Available data should be reviewed both for the potential triggers to be evaluated and for the assessment of their technical suitability / performance.
3. Selection of potential trigger indicators to be evaluated.
 - 5-15 indicators should be selected for detailed evaluation. Indicators can be simple singular climate variables (e.g., rainfall estimates from a particular satellite), composite indicators (e.g., the Water Requirement Satisfaction Index which uses various data inputs), or existing impact models (e.g., the African Risk Capacity model that attempts to predict drought-related food insecurity). No new composite indicators or impact models have to be developed for the purposes of the study – the selection should rely on existing research and previous analysis. The selection should be based on a preliminary

assessment of the indicators' potential technical and operational feasibility, congruence with the identified objectives and needed trigger characteristics, and data availability. The selection will be made jointly between the Technical Consultant and the Centre and informed by the discussion with the country teams in the Sahel.

- The key characteristics of the selected indicators should be presented for a non-technical audience, including general objectives of each indicator, composition, data sources, previous performance if available, existing user experience for related purposes, advantages and disadvantages, etc.

4. Evaluation of technical and operational suitability of selected indicators

- Identification and collection of needed trigger data. Specific data needs will have to be determined, including data sources, needed historical timelines, and relative observation periods. Thereafter, the identified data will need to be collected from public sources and government counterparts.
- Identification and collection of needed reference and validation data. Reference data for evaluating trigger technical suitability / performance will need to be identified jointly between the Technical Consultant and the Centre. Thereafter, the data will need to be collected from public sources and government counterparts by the Technical Consultant.
- Data transformation into the needed format for evaluation by the Technical Consultant. This may include e.g. the need to: aggregate raster data at suitable administrative unit level; ensure continuity of administrative unit boundaries over time as these may have changed; develop a dynamic data structuring tool allowing to evaluate indicators during specific phases of the crop cycle during the agricultural season rather than at fixed points in time during the calendar year; etc.
- Internal data validation checks, including, but not limited to, correlation analysis, basis risk analysis, will be performed by the Technical Consultant to determine the internal coherence and accuracy of the reference data.
- The technical and operational suitability / performance of the indicators will be evaluated in accordance with the evaluation framework developed by the Centre (<https://www.disasterprotection.org/blogs/7-habits-of-highly-effective-drf>). The analysis will also look at identifying the role of triggers during the development of crisis timelines to understand windows within which triggers would need to work to provide a timely response.

Please note: It is expected that the work will be primarily desk-based with remote consultations with stakeholders and organisations holding source data.

5. Communication of results

- For each country, the results will be documented in a final report and PowerPoint presentation, the key results of the evaluation should be described in detail for a non-technical audience, with the technical results contained in an annex. The final report should contain clear recommendations as to which analysed trigger indicator might be best suited to the country team's identified needs, as well as proposed approaches to testing and improving the trigger following first implementation.

Timeline

The timelines below are indicative and will depend on the country engagement and prioritization. The intended consultancy is for trigger analysis performed in maximum 3 countries in the Sahel from the following list: Burkina Faso, Mali, Chad, Mauritania, Niger. The exact schedules and workplan will be refined during the consultancy with each country team.

Output	Description	Timeline
Review of existing work on triggers	Review of previous studies and efforts to develop early warning response triggers for droughts and floods in the region.	November 2022
Evaluation framework for drought triggers	Define quality criteria against which the potential drought triggers will be evaluated – both for technical and for operational suitability	November – Dec 2022
Conduct drought trigger studies in Country 1 <i>Countries to be selected based on country team opt-in</i>	<ul style="list-style-type: none"> • Selection of indicators • Identify and collect needed data • Conduct technical and operational evaluation • Write-up and dissemination 	Jan 2023- March 2023
Conduct drought trigger studies in Country 2 <i>Countries to be selected based on country team opt-in</i>	<ul style="list-style-type: none"> • Selection of indicators • Identify and collect needed data • Conduct technical and operational evaluation • Write-up and dissemination 	March 2023- May 2023
Conduct drought trigger studies in Country 3 <i>Countries to be selected based on country team opt-in</i>	<ul style="list-style-type: none"> • Selection of indicators • Identify and collect needed data • Conduct technical and operational evaluation • Write-up and dissemination 	May 2023 – July 2023

Skills and experience

Successful candidate consultants or supplier teams will be able to demonstrate the following skills and experience:

- Master’s degree [or equivalent professional qualification] plus at least 5 years of experience in finance, insurance, economics, statistics, disaster risk management, or related discipline.
- Demonstrated international experience in quantifying agricultural production risks; analysis and measurements of crop yield data; food security monitoring; working with the Cadre Harmonisé.
- Demonstrated experience working with agricultural surveys.

- Demonstrated experience to understanding and working with innovative risk catastrophic models
- Weather and climate forecasting and numerical weather prediction; familiarity with remote sensing sources and techniques; advantages and disadvantages of different remote sensing approaches for agricultural yield forecasting.
- Presentation skills demonstrating the ability to present the results of complex analytical output to a variety of audiences with different levels of technical knowledge and experience.
- Excellent written and oral communication skills in French and English. Note that professional working proficiency in both French and English is an essential requirement.
- Experience and understanding of the project region will be strongly preferred.
- Proven ability to work in teams, as well as support the delivery of complex analytical and advisory services.
- Proven ability to work under pressure and deliver high quality work on time.
- Demonstrated international expertise in delivering technical assistance.

Applicants should have:

- A strong commitment to building resilience and reducing vulnerability in low and middle-income countries.
- Understanding of and commitment to the Centre's values and mission.
- The ability to take initiative, problem solve, and work effectively across multiple time zones as part of a dynamic, multidisciplinary team.

Intellectual property

Any foreground Intellectual Property Rights (IPR) arising out of the performance of project will belong to the Managing Agent of the Centre for the purposes of awarding to the Centre perpetual, irrevocable licence to use, sub-licence or commercially exploit such IPRs in the delivery of its mission and likewise to the Centre's funder, the UK FCDO. The Management Agent, on behalf of the Centre, will provide the Service Provider right to use such IPRs and other Centre IPRs to the extent needed to perform their obligations under this project. IPRs relating to any background intellectual property drawn upon by the Service Provider in delivery of the assignment shall remain with the Service Provider, who will provide the Centre (through its Managing Agent) and FCDO rights to use such intellectual property to the extent it is integrally required to enjoy their rights to use the results of the Project and the foreground IPRs.

Budget and costs

This work is expected to be offered on a consultancy or sub-contract basis, starting in **November 2022 until end of July 2023**. There will be a possibility to extend the number of days if necessary. The role will be contracted by DAI Global UK, who are the Centre's managing agent.

The value of the contract for the entire period should not exceed **70,000 GBP** (excluding UK VAT) and must be justified through an estimated activity-based budget for the indicated review of triggers, evaluation framework of drought triggers, and distinct trigger analyses on a country-by-country basis for up to 3 countries in the Sahel. The budget should set out:

- Fees:

- Proposed daily fee rate and proposed fee days for each consultant/team member, broken down by activity area. (See guidance on maximum permissible daily rates below).
- Total proposed fees
- Any proposed expenses,
 - By item, indicating unit cost and number of units
 - Total proposed expenses

(Expenses will be billable at cost. Any travel should be at standard/economy class only)

Please note overhead costs and margins (where applicable) should be included within the indicated daily fee rates of the team and will not be separately chargeable.

The maximum daily fees for each member of the team cannot exceed the table below, depending on their experience and expertise.

Category of expert	Maximum Daily Fee Rate (GBP) *
Principal (15+ years' relevant experience)	£750.00
Senior Expert (10-15 years' relevant experience)	£612.00
Expert (5-10 years' relevant experience)	£404.00
Assistant Expert (minimum of 2 years' and up to 5 years' relevant experience)	£170.00

*These figures are exclusive of UK VAT

These are ceiling rates only, and bidders are encouraged to bid below the ceiling of the fee rates. As a UK Aid funded assignment, assessment of responses will include an evaluation of value for money and cost, and the Centre/DAI reserve the right to negotiate on proposed costs ahead of any final award of contract.

Payment will be on a time and materials basis, linked to satisfactory progress, and subject to approval of key deliverables as relevant at each payment point. The precise payment framework will be agreed with the successful applicant.

Additional details

The Technical Consultant will report to the Centre's Sahel Project Team on technical matters.

The Centre is committed to building a diverse workplace and so we particularly encourage applications including consultants/team members from diverse backgrounds that are typically under-represented in this sector.

DAI is a global development company with corporate offices in the USA, the UK, the EU (Belgium, Austria, Serbia), Nigeria, Pakistan, and Palestine, and project operations worldwide. DAI tackles fundamental social and economic development problems caused by inefficient markets, ineffective governance, and instability; it works on the frontlines of global development, transforming ideas into action—action into impact. DAI is committed to shaping a more liveable world.

Scale-up and scale-down

Please note that, in particular given the dependence of certain activities on uptake from partner and country stakeholders, following contract award the Centre reserves the right not to move forward with one or more of the activity and output areas listed in this Terms of Reference and accordingly reduce the scope and budget of the assignment and contract if necessary. The Centre also reserves the right to negotiate adjustment of the scope of work and timeline, with the Consultant/Supplier. Time extensions of contract, and/or additional funding linked demonstrably to increases in scope, may be awarded, in all cases limited to no more than a 100% increase on the original duration/contract value. The Centre and DAI will make every effort to advise of changes with us much notice as possible, and pay costs incurred by the Supplier in good faith where compliant with UK Aid funding terms and conditions.

Application process

Interested applicants (individuals or organisations) should apply by e-mail by sending the following to jobs_centre@disasterprotection.org.

- Applicant name (individual or organisation), correspondence address (and organisational registered address and number, where applicable), and contact name, email address and telephone number.
- A short outline of proposed technical approach to the assignment, and brief cover letter introducing the expert/team's experience in relation to the assignment. (No more than 4 and 1 pages respectively)
- CVs for the proposed experts/team (maximum 3 pages each) with sufficient information to demonstrate eligibility for the selected expert category, based on experience.
- Proposed budget, set out as indicated in the Budget and Costs section above (assuming a sequential analysis of minimum 3 countries)

Bid submissions should be clearly marked with the following E-mail Subject line: Bid Submission: Agriculture Risk Management and Food Security in the Sahel

Any questions about the assignment or application process may be sent to the same address.

The window for applications will remain open until **16.00 hrs (UK time) 15th September 2022**. Applicants can submit clarification questions in writing (by email) to the Centre no later than 2nd of September 2022. The Centre will reply to all questions no later than 7th of September – anonymised questions and answers will be posted on the Centre's website <https://disasterprotection.org/work-with-us>. Bidders should check for any updates and responses on this page after 7th September, before finalising their submissions. Updates and responses will be posted on UK Contracts Finder.

Registration of interest and potential bidders meeting

Individuals and organisations are encouraged to advise the Centre of interest/an intention to bid on this assignment, by email to the address set out above. The Centre may organise an information meeting for bidders prior to the submission deadline. This opportunity will be advertised on the Centre's website (page indicated above) no later than 3rd September 2022, with instructions on how to request an invitation to participate.

Assessment of bids, selection of preferred bidder, due diligence and award.



The Centre will assess all applications received until 16:00 (UK time) on the 15th September 2022 and will respond to preferred applicants no later than October 15th.

Award of contract will be subject to due diligence and vetting checks in lines with UKAid and DAI policies.

The Centre and DAI reserve the right to make amendments to this requirement and bid process, to withdraw the opportunity, and/or to choose to make no award as a result of this process.

The inception date of the technical assistance cannot be later than November 1st, 2022.