

Pest Risk Information Service: Dissemination & Crowdsourcing

Request for Proposals

What is PRISE?

Innovation can provide new solutions. PRISE helps to improve the livelihoods of smallholder farmers by reducing crop losses caused by pests across four sub-Saharan African countries.

Data from a variety of sources – satellite observations, weather data, geographic data, and details about the spread and biology of pests – are combined in a data cube to run algorithms, which ultimately produce pest risk forecasts. These are used to give farmers timely alerts and advice to help manage local pest outbreaks.

PRISE models risk to crop health from insect pests and plant diseases based on environmental data. Tailored messages are used to provide a risk assessment to growers in particular regions. Advice and support is offered by the Plantwise network and other agricultural extension services, and subscribers are prompted to provide crowdsourced feedback, which is used to validate the model. This feedback loop provides greater confidence in the forecasts.

The Opportunity

The PRISE project is at an exciting stage where pest models have been developed for a number of crops and are ready to be sent to users. PRISE is looking for partners in Ghana, Kenya, Malawi and Zambia who can offer services to disseminate pest alerts and collect feedback from users. It is expected that PRISE pest alerts will complement an existing agri-information service already established by the partner, and reach a user-base of farmers and agri-extension personnel, with PRISE pest alerts offering value-addition to this service.

PRISE is expecting to select multiple partners for this scope of work, therefore it is not expected that submissions cover all countries, and that PRISE may work with multiple partners in the same country.

There are different levels of partnership funds available; applicants are requested to describe solutions scaling from \$12,500-\$50,000 USD.

Timeframes

	Ghana	Kenya	Malawi	Zambia
Season	Major season 2021: Mar-Aug	Short rains 2020: Oct-Jan	Main season 2020/21: Nov- Mar	Main season 2020/21: Nov- Mar
Contract Start Date	Feb 2021	Sep 2020	Oct 2020	Oct 2020
Contract End Date	Oct 2021	Mar 2021	May 2021	May 2021

PRISE Key User Groups

PRISE's primary audience are small-holder farmers. However we also want to target intermediary actors who provide information services to farmers such as public and private extension workers.

PRISE Information & Dissemination Channels

The PRISE pest alerts are actionable time estimates for specific crop pests based on a variety of EO data sources and crop/pest models in the format of 'number of days to action' from crop planting, and is based on the time (in days) for the insect larval population to reach its maximum incidence after planting for each calendar month. This information can be used as a proxy to identify the time at which a farmer can apply or perform the appropriate management practises to their crop to have the greatest impact on killing pest populations and thus limiting pest-induced damage.

To disseminate this information at present, PRISE sends alerts twice a month in a bulletin with the pest alerts in a map format as well as Plantwise pest management recommendations to promote good agronomic practices and approved management actions. The PRISE pest alerts can be used in a number of different formats - plain text, maps and tables (outlined below).

- PRISE Bulletin - <https://drive.google.com/file/d/1ECUIhfbPgj2bxhPWHBRqU-00aPgY0YkQ/view?usp=sharing>

This could be used for print/radio/TV dissemination channels

- PRISE DataCube

The PRISE DataCube is where Earth Observation data is processed and pest and disease models are calculated. This information is updated daily and so partners can access up to date information on pest alerts in order to disseminate information in a

timely manner. A REST API service allows partners to request data and integrate PRISE pest alerts into existing services. Common requests will include:

- Location - request data for administrative areas to provide localised services
- Timing - request data for different planting months
- Crops - request data for the crop of interest
- Pest - request data for the pest of interest

The information returned from the DataCube will provide data on the optimum time to take action for a particular pest. This dynamic information can be combined with monitoring, prevention and control advice from the PRISE bulletin or the [Plantwise Knowledge Bank](#). Data from the DataCube is ideal for sending via SMS/mobile apps/social media/web/radio or integrating with existing services. An example of data delivered via the PRISE dataCube can be seen here: <https://prise.org/alerts/>

PRISE outputs include alerts for the following pests:

Pest	Common Name
<i>Spodoptera frugiperda</i>	Fall Armyworm
<i>Chilo partellus</i>	Spotted Stalk Borer
<i>Busseola fusca</i>	Stalk Borer
<i>Liriomyza huidobrensis</i>	Serpentine Leaf Miner
<i>Bemisia tabaci</i>	Whitefly
<i>Helicoverpa armigera</i>	Cotton Bollworm
<i>Tuta absoluta</i>	Tomato Leaf Miner

PRISE Crowdsourcing

In addition to disseminating up-to-date pest risk information the PRISE project relies on gathering data from users. This information provides a valuable feedback loop so that pest models can be assessed and improved, and the alerts can be validated. Proposals should describe services that can gather data from users about pest observations, farming practices and feedback on the service. This might include; provision of existing data, SMS response data, in-person surveys, phone surveys, online surveys.

Partner requirements

1. Existing dissemination system

- a. Established infrastructure for content dissemination (already tested and regularly maintained and managed)
- b. Data skills within the operating team to work with a REST API or python data service

2. Existing user base of profiled smallholder farmers

- a. Ability to disaggregate users by:
 - i. Location (to what scale can location be provided?)
 - ii. Crop(s) produced
 - iii. Gender

3. Rigorous content production and validation process

- a. Appropriate government/expert sign off of content already in system

4. Two-way communication system

- a. Channel(s) for both sending and receiving of information. Data collection service(s) for retrieving information from users either in real-time, mid-season and/or end-of-season farmer feedback.

5. Sufficiently qualified and experienced operational team to deliver the agreed scope of work

- a. The partner is not permitted to subcontract any of its obligations under the agreement without the prior written consent of CABI.

Data Use, Branding and Intellectual Property

All documents, data, records or materials provided by CABI will remain the property of CABI. The selected partner shall take all reasonable precautions to protect the security of CABI's property and prevent unauthorized access to it by any third party.

Partners will be provided a licence to access to the PRISE data in a pre-agreed format for the period of the contract, and any extensions agreed to by both parties.

Crowdsourced data collected by the partner will remain in the ownership of the partner, with access to the raw data provided to PRISE under licence to a non-exclusive perpetual licence to use the results in any products and services or communication medium it chooses. PRISE commits to anonymity of named persons within this data, as part of CABI's [Privacy Policy](#).

Both PRISE and the partner will agree to acknowledge each other in branding and communication materials. The partner will agree to acknowledge PRISE in (co-)funding of products and services as a result of this scope if work.

Assessment criteria

Responses to this call will be judged on the following criteria:

- Understanding of the brief (10%)
- Outline of the solution(s) offered (20%)
- Submission of a proposal with a breakdown of costs (5%)
- Ability to deliver the service within the deadline (10%)
- Assessment of satisfaction of past projects if the organisation has previously worked with CABI (15%)
- Demonstration of proven success of providing similar services - with reference to appropriate service localisation (context, language, format etc.) (15%)
- Stature of the organisation (operating years, finance, size of team etc.) (10%)
- Coverage and scale of operation; which countries and number of contacts/farmers (15%)

Deadline

Deadlines for submissions are based on the following table by country:

	Ghana major season (2021)	Kenya (short rains 2020)	Malawi main season (2020/21)	Zambia main season (2020/21)
Invitations Open	8th Jul 2020	8th Jul 2020	8th Jul 2020	8th Jul 2020
Closing Date	4th Jan 2021	31st Jul 2020	7th Aug 2020	7th Aug 2020
Review Completion Date	15th Jan 2021	14th Aug 2020	21st Aug 2020	21st Aug 2020
Project Start Date	1st Feb 2021	31st Aug 2020	7th Sep 2020	7th Sep 2020

One proposal can be submitted for multiple countries, in which case applications should be submitted in line with whichever country deadlines are **earliest**.



V.1 7/7/2020

If interested, please respond (contacts below) with a proposal including the services you can offer, a breakdown of costs (as far as possible), an outline of your process for determining and refining requirements with us, an iterative development/testing plan and full details of how you satisfy each component of the assessment criteria. Please also fill in the background information and business probity forms in Appendix 1 and submit alongside your proposal.

Please limit your tender proposal to a maximum of 6 pages. You may enclose standard supporting documentation.

Please email with any requests for additional information.

Primary Contact

Will Holland: PRISE Project Officer

Email: w.holland@cabi.org

Secondary Contact & Submission

Tim Beale: Geospatial Data Analyst

Email: t.beale@cabi.org

Appendix 1: Application Front Cover

Please complete both Parts A and B to submit with your application.

PART A - Background Information

1	Name of Organisation	
	Address for all correspondence	
	Primary Contact Name	
	Primary Contact Position	
	Telephone Number	
	Fax Number	
	Email address	
	Website address	
2	Address from where service will be provided	
	Address(es) from where specialist services will be provided	

	Address of Registered Office	
3	Nature of Organisation (e.g. Partnership etc).	
	Company Registration Number (or alternative EU registration number)	
	Registration Date	
	VAT Registration Number (or alternative EU registration number)	
	Group If a Member of a Group of Companies, please give details of the ultimate parent company	
	Brief summary of Business Activity	
4	Number of Employees	
	Annual Turnover (latest accounts)	

PART B – Business Probity

5.	Please declare any potential conflicts of interest with your existing clients.
6.	Please declare any pecuniary or other interests which may exist either from personal circumstances or as a result of your firm, or your firm's partners or employees, being employed or engaged in a material sense by CABI.
7.	Please declare your commitment to and compliance with the requirements of the UK Bribery Act and advise what processes exist to ensure that CABI employees or other stakeholders are not compromised by any actions of the firm or its employees / partners
8.	In order to protect both staff and the reputation of CABI from accusations of bribery or corruption, staff are not permitted, directly or indirectly, to accept any gift, hospitality, reward or other benefit from any source with whom he/she has been brought into contact or maintains contact only by reason of the duties for which they are employed by CABI. Please confirm your

	<p>understanding and agreement that CABI staff will not be compromised by any actions of the firm or its employees / partners</p>
9.	<p>Provide contact details of a reference appropriate to the services required by CABI.</p> <p>Referee Organisation:</p> <p>Contact Name:</p> <p>Title:</p> <p>Address:</p> <p>Service Provided:</p> <p>Time Period:</p>
10	<p>Please confirm that: Health & Safety; Quality Assurance; Equality & Diversity; Environmental; Corporate Social Responsibility and UK Bribery Act management standards or policies exist for your staff, are managed and are available for scrutiny on request.</p>

	Confirmed: YES / NO (Delete as applicable)
11	Please return copies of current insurance certificates: <ul style="list-style-type: none">● Employer's Liability Insurance● Public Liability Insurance● Professional Indemnity Insurance
	Confirmed: YES / NO (Delete as applicable)