## DIR30IN\1094

#### Digital innovation to protect Colombian coffee farms and farmers

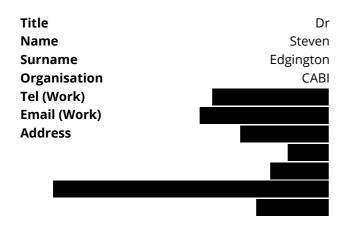
Every year US\$ millions of coffee is destroyed by an insect, the Coffee berry borer (CBB). CBB has a huge impact on farmers' livelihoods but also increased levels of chemical insecticides for its control are putting the health of farmers and their families at risk and destroying farm biodiversity. This project will field test an innovative CBB-emergence alert system, with women coffee farmers in Colombia, to enable timely CBB control and reduced reliance on chemical pesticides

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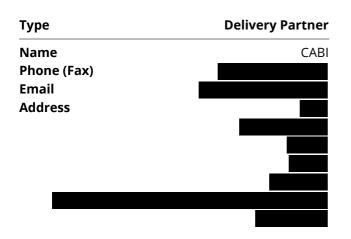
Digital innovation to protect Colombian coffee farms and farmers

## **Section 1 - Contact Details**

#### **PRIMARY APPLICANT DETAILS**



#### **GMS ORGANISATION**



## Section 2 - Project Summary, Ecosystems, Approaches and Threats

#### Q3. Title

Digital innovation to protect Colombian coffee farms and farmers

#### Please attach a cover letter as a PDF document.

- & Cover letter CABI
- 菌 05/10/2023
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- pdf 131.41 KB

#### Q4a. Is this a resubmission of a previously unsuccessful application?

⊙ No

#### **Q5. Key Ecosystems, Approaches and Threats**

Please select up to 3 biomes that are of focus, up to 3 conservation actions that characterise your approach, and up to 3 threats to biodiversity you intend to address, from dropdown lists.

Biome 1
Intensive land-use systems
Biome 2
No Response
Biome 3
No Response
Conservation Action 1
Land / Water Management
Conservation Action 2
Livelihood, Economic & Moral Incentives
Conservation Action 3
Awareness Raising
Threat 1
Agriculture & aquaculture (incl. plantations)
Threat 2
Pollution (domestic, commercial, agricultural)
Threat 3
Invasive & other problematic species, genes & diseases

## Q6. Summary of project

Please provide a brief non-technical summary of your project: the problem/need it is trying to address, its aims, and the key activities you plan on undertaking. Please note that if you are successful, this wording may be used by Defra in communications e.g. as a short description of the project on the website.

Every year US\$ millions of coffee is destroyed by an insect, the Coffee berry borer (CBB). CBB has a huge impact on farmers' livelihoods but also increased levels of chemical insecticides for its control are putting the health of farmers and their families at risk and destroying farm biodiversity. This project will field test an innovative CBB- emergence alert system, with women coffee farmers in Colombia, to enable timely CBB control and reduced reliance on chemical pesticides

## Section 3 - Dates & Budget Summary

### Q7. Country(ies)

#### Which eligible country(ies) will your project be working in?

Country 1	Colombia	Country 2	No Response
Country 3	No Response	Country 4	No Response

#### Do you require more fields?

⊙ No

#### Q8. Project dates

Start date:	End date:	Duration (e.g. 1 year, 8
		months):
01 April 2024	31 March 2026	2 years

#### **Q9. Budget Summary**

Darwin Funding Request	2024/25	2025/26	Total request
(Apr - Mar) £	£99,395.00	£100,596.00	199,991.00

## Q10. Do you have proposed matched funding arrangements?

• Yes

Please ensure you clearly outline your matched funding arrangement in the budget.

## Q11. If you have a significant amount of unconfirmed matched funding, please clarify how you will fund the project if you don't manage to secure this?

NA

## Q12. Have you received, applied for or plan to apply for any other UK Government funding for the proposed project or similar?

• Yes

#### Please give details:

To note, the proposed project is a follow-on from a pilot project funded by the UK Colombia Prosperity Fund (implementing partner Innovate UK) which was a proof of concept to build (but not field-test) a CBB-emergence model for Colombia. All three partners in the proposed project, CABI, 'Local Partners' (previously called Cafexport) and Assimila were all involved in the pilot project (CABI was project lead).

## **Section 4 - Darwin Objectives and Conventions**

### Q13. Problem the project is trying to address

Please describe the problem your project is trying to address in terms of <u>biodiversity and its relationship</u> <u>with multi-dimensional poverty</u>.

For example, what are the causes of biodiversity loss, preventing conservation, and/or keeping people in multi-dimensional poverty that the project will attempt to address? Why are they relevant, for whom? How did you identify the need for your project? Please <u>cite the evidence</u> you are using to support your assessment of the problem (references can be listed in your additional attached PDF document).

Coffee berry borer is the most serious pest of coffee worldwide, causing global annual crop losses in excess of US\$500 million. In Colombia, the coffee industry is estimated to be worth US\$2.5bn annually, employing 540,000 smallholder families and over 135,000 seasonal workers, largely in post-conflict regions, who are vulnerable to poverty and climate impacts (Kalmanoff, 1968; Infante, 2018). Increases in temperature and humidity levels in Colombia have tripled CBB infestation in recent years (Iscaro, 2014; Pham et al., 2019). Due to its cryptic nature CBB is notoriously difficult to control (Benavides et al., 2012). Management strategies centre around chemical pesticides however these cause acute and chronic health issues for farmers and their families and destroy key components of biodiversity such as pollinators, natural enemies and soil microbiology (Sera et al., 2010). Women farmers are disproportionally affected as despite some specific efforts of cooperative organisations and extension services, it appears that – like in most agricultural sectors in Colombia – women farmers do not receive the same level of support and engagement as their male counterparts (Sumarti & Falatehan, 2016; Pineda et al., 2019). Additionally, a needs assessment among Colombian women farmers by the partners in a pilot project identified knowledge gaps regarding both pesticide safety and safer alternatives called biological pesticides (biopesticides).

The project will address themes of biodiversity conservation, poverty alleviation and gender inclusivity by implementing and testing a real time CBB-emergence alert with women Colombian coffee farmers. A field validated alert would improve CBB control by providing guidance on the optimal timing for biopesticides. The CBB alert would warn farmers when CBB will emerge from their hiding places, hence the optimal time to spray. CBB biopesticides in Colombia are fungal based with limited persistency on leaves, so timing a spray is critical to ensure adequate CBB contact. Optimal biopesticide timing would reduce the use of chemical pesticides and thereby protect biodiversity, it could also open more lucrative markets for 'greener' produce. The project will deliver training, resources and an SMS messaging service at local (farmer/advisor) and national level (government/private sector) to complement the CBB alert.

The project is a continuation of work from 2019-2021 in which the partners collaborated with 20 women Colombian coffee farmers to produce a CBB-emergence model. The project, funded by the UK Colombia Prosperity Fund, modelled data on climate (field and satellite earth observation data (EO)), crop phenology and CBB populations, to model and predict CBB emergence peaks across the growing season. The present project will vigorously field-test this model to ensure it produces a robust, reliable alert that can be scaled-out across a wide coffee-growing area. The Prosperity Fund project worked closely with the farmer cohort to identify where knowledge gaps exist with regards to biopesticides and chemical pesticides as well as appropriate pathways for delivering information. The proposed project will build on these outputs to ensure the CBB alert and the resources and know-how required are delivered in an effective and inclusive means to enable farmer uptake

## Q14. Biodiversity Conventions, Treaties and Agreements

# Q14a. Your project must support the commitments of one or more of the agreements listed below. Please indicate which agreement(s) will be supported.

- ☑ Convention on Biological Diversity (CBD)
- ☑ United Nations Framework Convention on Climate Change (UNFCCC)
- ☑ Global Goals for Sustainable Development (SDGs)

## Q14b. National and International Policy Alignment

Using evidence where available, please detail how your project <u>will contribute</u> to national policy (including NBSAPs, NDCs, NAPs etc.) and in turn international biodiversity and development conventions, treaties and agreements that the country is a signatory of.

The proposed project will contribute to a global target from the UN Biodiversity Conference (COP 15) in Dec 2022 of reducing by half excess nutrients and overall risk posed by pesticides. In addition, the project will contribute to two national policies/plans in Colombia:

1. National Policy for the Integral Management of Biodiversity and its Ecosystem Services (PNGIBSE). The project will contribute to PNGIBSE implementation in Axis I. 'Biodiversity, Protection and Care of Nature', including 'the in-situ care of biodiversity to enable ecosystem services to thrive', with a specific goal focussed on controlling invasive species and, Axis IV. 'Biodiversity and the Management of Knowledge, Technology and Information', with a focus on 'increased investments in the areas of scientific research, publication and innovation'

2. National Adaptation Plan – Agriculture (2017). Formulated in light of climate change adaptation and mitigation with a key component of integrating gender in national adaptation planning for agriculture. Climate change is enabling CBB spread in Colombia, the project will provide innovation and support to women farmers to help control CBB spread safely.

In addition, the Federación Nacional de Cafeteros de Colombia (FNC) and the Colombian government began a process of developing a coffee-sector 'Nationally Appropriate Mitigation Action' (NAMA) in 2016, but work has stalled. By developing the capacity of FNC to address a key driver of biodiversity loss in the sector, through technology-informed and nature-based solutions, it is hoped the project will reignite the ambition of national-scale action for more sustainable coffee production.

Cenicafé will sit on the project executive. Cenicafé is the research division of FNC. CABI has a long history of engagement with Cenicafé, including co-delivery of pest management projects. During the earlier Prosperity Fund project there was data-sharing between the organisations

## Section 5 - Method, Innovation, Capability & Capacity

## Q15. Methodology

Describe the methods and approach you will use to achieve your intended Outcome and contribute towards your Impact. Provide information on:

- how you have reflected on and incorporated <u>evidence and lessons learnt</u> from past and present similar activities and projects in the design of this project.
- the specific approach you are using, supported by <u>evidence</u> that it will be effective, and <u>justifying why you</u> <u>expect it will be successful</u> in this context.
- how you will undertake the work (activities, materials and methods).
- what the **main activities** will be and where these will take place.
- how you will <u>manage the work</u> (governance, roles and responsibilities, project management tools, risks etc.).

The pilot project conducted a needs assessment to understand requirements and challenges faced by Colombian women farmers. It identified knowledge gaps that exist regarding biopesticides and chemical safety and preferred methods of communication and these will be key drivers throughout the project's methodology. There was strong engagement by the farmer cohort throughout the previous project and the proposed project anticipates similar with the same cohort.

Work Package 1: Stakeholder Engagement (Aguadas and Chinchiná, Colombia) Engage with key stakeholders, including 16 women coffee farmers, local cooperatives and the FNC. Strengthen communication pipeline for key stakeholders. Facilitate gender sensitivity workshops for local service providers including field advisors.

Work Package 2: CBB Alert System Implementation and Adoption (Aguadas, Colombia) Deliver CBB alert training to farmer cohort.

Deliver biodiversity and biopesticide information via appropriate pathway(s) to farmer cohort and local advisors, to complement alert implementation.

Design and deliver CBB alert dashboard to support scale-out of CBB alert after project end.

Work Package 3: Data Collection, Management and Governance (Aguadas, Colombia) Produce datasets on key biodiversity indicators, i) groundcover, ii) pollinators, iii) nematodes, iv) birds, across multiple cropping seasons, to measure the impact of the alert and complementary resources. Produce datasets across multiple cropping seasons on key performance indicators from the farms, i) CBB population levels, ii) coffee yields, iii) pesticide inputs.

Produce end line survey assessments on farmer attitudes towards biodiversity conservation, biopesticides and digital innovation.

Work Package 4: Capacity Strengthening and Training (Aguadas and Chinchiná, Colombia) Develop methodology for CBB alert scale-out to women coffee farmers beyond project timeframe. In collaboration with the farmer cohort, through workshops and the production of educational posters and movie material on biodiversity conservation, biopesticide best practice and pesticide safety.

A discursive space will be created to bring together complimentary indigenous, local, and scientific knowledge systems. Target women farmers will be trained in participatory video (PV) techniques and assigned as 'community researchers' to facilitate the participatory process within their community (provided with guidance and support throughout project).

Facilitate capacity strengthening of local advisors via participation and completion of the CABI training course 'Bioprotection Products'.

Training and capacity strengthening with FNC and cooperatives on biopesticides and biodiversity conservation to support scale-out of the alert. Facilitated by Local Partners, who work directly with coffee cooperatives and ~6,800 farmers certified in the Nespresso AAA Sustainable Quality™ Program.

Work Package 5: Project Monitoring, Reporting and Sustainability (UK, Colombia) To use the structured PRINCE2 methodology as the project's management tool (CABI uses PRINCE2 for all its projects). Appoint a project board which will include CABI's country coordinator for Colombia, CABI's Regional Director for Latin America and, senior representatives from Cenicafé and Nespresso; the board has key responsibilities for overall project direction, decision making and resource commitment. Use participatory action research (PAR), utilising participatory video (PV), to emphasise collective enquiry and social change. Utilising approaches that consider local and indigenous people as equal partners supporting community engagement and knowledge sharing, to promote ownership and equitable decision-making in the project from the outset.

### Q16. Innovation

#### Please specifically outline how your approach or project is innovative.

## Is it the application of a proven approach in a distinctly different geography/issue/stakeholder (<u>novel to</u> <u>the area</u>), or in a different sector (<u>novel to the sector</u>), or an unproven approach in any sector (<u>novel to the</u> <u>world</u>)?

Utilizing EO data for real-time CBB alerts is an untested approach in the coffee industry, although it has been successfully utilised for other pests on other crops (Lowry et al 2022; Day et al 2023). Typically, coffee farmers globally schedule CBB pesticide sprays based on calendar or visual crop inspections. However, these methods fall short because CBB infestations are rarely visible or, if trapped, can be misidentified or trapped too late to intervene effectively. At present, a dependable tool for accurate CBB spray notifications is lacking. However, given the rising prevalence of CBB infestations due to climate change and the emergence of pesticide harm, the demand for such a tool has never been greater.

The previous project (18 months duration) was designed primarily to build a CBB emergence model. It involved a substantial investment in collecting and analysing long-term climate data, including air and land surface temperatures, precipitation and relative humidity. Its primary aim was to establish connections between CBB occurrences and changes in regional and continental climate patterns. This effort included assessing Sea Surface Temperature anomalies, which significantly influence seasonal weather in Colombia, and examining the Monthly Oceanic Nino Index and Atlantic Multidecadal Oscillation indices. Furthermore, climate risk indices were developed using 40+ years of weather data and crop suitability parameters. The previous project uncovered links between CBB infestations and climate variations, the proposed project can now build on this to enhance CBB management and optimize the timing of safer control methods.

## Q17. Capability and Capacity

How will the project support the strengthening of capability and capacity of identified local and national partners, and stakeholders during its lifetime at organisational or individual levels? Please provide details of what form this will take, who will benefit (noting any Gender equality and social inclusion (GESI) considerations), and the post-project value to the country.

As primary, national stakeholders the project will engage with the FNC (through its national research body Cenicafé) and its network of cooperatives, sharing outputs and a CBB alert dashboard; as well as holding information-sharing workshops. Cenicafé and CABI have collaborated for many years, including co-implementation of coffee management projects.

The plan for secondary beneficiaries is a more continuous process, operating through the network of advisory service providers and coffee cooperatives, to establish the foundation for scale-out of the CBB alert system beyond the project implementation phase. The project will engage with other service providers delivering agronomic support across Colombia, as part of the Nespresso AAA Sustainable Quality<sup>™</sup> Program, as well as with

the Asociación Colombiana de Bioinsumos (Asobiocol), the trade association for biopesticides in Colombia. The Nespresso AAA Sustainable Quality<sup>™</sup> Program includes 9 coffee cooperative organisations with a total reach of 30,000 farmers across 73,000ha of cropland. Nespresso are committed to supporting regenerative agriculture in their supply chain and have expressed a keen interest in the project's approach, acknowledging the potential for scalability across Colombia (and potentially elsewhere).

Cooperative organisations act as the primary contact point for all coffee farmers in Colombia; therefore, enhancing their awareness and capacity with the CBB alert system and, giving improved advice on CBB management, can help scale the project's impact to many thousands of smallholder farmers. Local Partners already hold excellent relationships with many cooperatives in the 'zona cafetera' representing over 6,000 coffee farms and, will leverage these connections to improve skills and knowledge on safeguarding biodiversity through safer crop protection.

Throughout the project sex and age disaggregated data will be collected to inform understanding of factors that influence technology uptake (CBB alert + biopesticides), which will provide important insights for future targeted work, for example specific opportunities for youth and women engagement.

## If necessary, please provide supporting documentation e.g. maps, diagrams, references etc., as a PDF using the File Upload below:

- & <u>References</u>
- 菌 18/10/2023
- ③ 13:38:40
- pdf 120.33 KB

## Section 6 - Gender, Awareness, Change Expected & Exit Strategy

#### Q18. Gender equality and social inclusion

All applicants must consider whether and how their project will contribute to promoting equality between persons of different gender and social characteristics. <u>Explain your understanding</u> of how individuals may be excluded from equal participation within the context of your project, and <u>how you seek to address this</u>. You should consider how your project will <u>proactively contribute to ensuring individuals achieve equitable outcomes</u> and how you will engage participants in a meaningful way.

Although the Colombia coffee industry has made efforts to address gender inequality in farming households, women are still marginalized socially and economically, with low recognition of the work they do on the farms (both looking after family and home and in coffee growing). In Colombia there are few women-run farms compared with men-run farms and on the whole women take a secondary role in coffee production. Currently there is also limited access to more lucrative organic coffee markets as CBB are being treated with chemical pesticides, which are not permitted in such markets, however high poverty levels in rural areas and a lack of knowhow and services to move away from chemical pesticides, are blocking such moves to new markets and in doing so blocking opportunities to improve livelihoods.

The proposed project will first and foremost enable women farmers to make better, safer decisions on pest and disease management on their farms, empowering them via innovation, combined with sensitive approaches to skills awareness and capacity strengthening. The project will enable women farmers to be a central user of the innovative CBB alert and, enhance their ability to enter organic markets. This could gain them higher respect as businesspeople and foster a greater role in decision making on farms contributing to transforming negative social norms and decision-making roles embedded within gendered and unequal power relations. By documenting their own experiences through PAR, the participating women can voice their experiences,

challenges and successes through a reiterative learning process which will ensure the alert and resources are tailored to their needs. Through this process their inclusion and engagement in the project will be ensured from the start. There is high probability that hearing from women users themselves will have wider reach within the community, promoting further uptake among farmers and supporting scale-out.

## Q19. Change expected

Detail the expected changes to both biodiversity and multi-dimensional poverty reduction, and links between them, that this work will deliver. You should identify what will change and who exactly will benefit a) in the <u>short-term</u> (i.e. during the lifetime of the project) and b) in the <u>long-term</u> (after the project has ended).

When talking about how people will benefit, please remember to give details of who will benefit, differences in benefits by gender or other layers of diversity within stakeholders, and the number of beneficiaries expected. The number of communities is insufficient detail – number of households should be the largest unit used.

In Colombia, heavy reliance on chemical pesticides to combat CBB infestations in coffee crops poses risks to both human health and local biodiversity. These pesticides can lead to acute and chronic poisoning in humans and harm essential ecosystem service providers like pollinators, natural predators and soil microorganisms. The resulting consequences include reduced work and educational opportunities through illness, soil degradation and decreased crop productivity (impacting not only coffee but also other intercropped species).

The primary goal of the project is to introduce an innovative real-time CBB alert system to the coffee industry. This system will offer a thoroughly tested tool with the potential for expansion beyond the project's timeline, benefiting thousands of small-scale coffee farmers. The CBB alert system empowers farmers to apply pesticides precisely when needed to control this cryptic pest, reducing unnecessary sprays. By diminishing the need for costly chemical pesticides, farmers can allocate their resources more efficiently, contributing to poverty reduction and improved livelihoods within the coffee sector. Additionally, the project includes training on the use of biopesticides, which are environmentally friendly and pose minimal threats to human health.

In the short term, the project collaborates with a group of 16 women coffee farmers who participated in a prior pilot project. These smallholder farmers have low incomes and some have faced vulnerability due to displacement from conflict-affected regions. During the previous project, there was extensive interaction with these farmers, including weekly farm visits by project partners over 18 months. These women farmers actively engaged in various activities, including hands-on data collection, capacity-strengthening sessions and knowledge-sharing workshops. They also participated in testing SMS as a means of delivering information. While the introduction of the CBB alert system represents an untested innovation with inherent risks, it is expected to enhance CBB control for these women farmers. This, in turn, is likely to lead to higher yields, increased market returns and reduced financial expenditures by minimizing unnecessary pesticide applications, whether chemical or biological. Emphasizing biopesticides will enable these farmers to protect local biodiversity, enhancing crop resilience to environmental changes. Transitioning away from chemical pesticides will also enable the 16 women farmers to explore certification schemes, including organic certification, which can yield higher profits.

In the long term, realizing transformative effects, particularly regarding biodiversity preservation, may take several growing seasons and extend beyond the project's duration. However, the project anticipates that the CBB alert system and its associated components will benefit thousands of coffee farmers while contributing to stepwise improvements in Integrated Pest Management (IPM) strategies. The project partner, Local Partners (previously 'Cafexport'), has established strong relationships with numerous cooperatives in the coffee-growing region, known as the 'zona cafetera,' representing more than 6,000 coffee farms. Moreover, the project has forged a robust connection with the Nespresso AAA Sustainable Quality™ Program, which includes nine coffee cooperative organizations. This collaboration has the potential to reach a total of 30,000 farmers across 73,000

hectares of cropland. Consequently, the project's long-term impact and expected changes have the potential to be significant.

## Q20. Pathway to change

Please outline your project's expected pathway to change. This should be an overview of the overall project logic and outline <u>why and how</u> you expect your Outputs to contribute towards your overall Outcome and, in the longer term, your expected Impact.

The project's pathway to change is strategically designed to address the prevalent use of chemical pesticides in Colombia's coffee industry and mitigate its adverse effects. The approach involves introducing a real-time CBB alert and advocating biopesticide adoption, with a clear trajectory towards achieving desired outcomes and wider scale-out.

Short term, the project will engage with 16 women coffee farmers, all low-income smallholders and, in some cases, displaced due to conflicts. It will test the CBB alert and provide complementary hands-on training, capacity-strengthening and knowledge-sharing. This approach is expected to enhance the farmer's pest management precision and minimize unnecessary pesticide use.

Medium term, we anticipate improved CBB control and increased yields for these farmers. Reduced pesticide expenditure and enhanced crop health will result in improved financial returns and, open-up new markets. The biopesticide emphasis will promote biodiversity conservation, contributing to crop resilience against environmental changes.

Long term, we envision a transformative impact extending post-project. The CBB alert and the shift towards biopesticides are anticipated to become integral components of IPM strategies within the coffee industry. This long-term transition towards sustainable and environmentally friendly pest management is crucial for reducing the industry's environmental footprint, safeguarding human health and preserving biodiversity.

## Q21. Sustainable benefits and scaling potential

## Q21a. How will the project reach a point where benefits can be sustained post-funding? How will the required knowledge and skills remain available to sustain the benefits? How will you ensure your data and evidence will be accessible to others?

The project will strengthen the capacities of local and national stakeholders to reduce the use of chemical pesticides on coffee farms and move to more environmentally benign methods of pest control. The project will focus its local engagement activities with stakeholders primarily in Caldas. However, with over half a million coffee farms across other departments in Colombia, there is significant potential for the CBB alert system to be scaled out nationally across Colombia for sustainable, long-lasting change. The support provided during the project should enable local and national stakeholders to utilise the knowledge products and technological solutions developed during the project to scale the approach to 000s more coffee farms across Colombia, with minimal input from the project partners. The knowledge products will be housed on free, open-access resources; including the CABI BioProtection Portal (https://bioprotectionportal.com/), developed in collaboration with Rainforest Alliance, Nespresso and FCDO (amongst others).

## Q21b. If your approach works, what potential is there for scaling the approach further? Refer to Scalable Approaches (Landscape, Replication, System Change, Capacitation) in the guidance. What might prevent scaling, and how could this be addressed?

The proposed project is designed to deliver on three scaling approaches:

Landscape: The robust field-testing of the CBB alert will enable this technology to be applied across a broader geography in Colombia.

Replication: With minimal research and development, the CBB alert system can be applied to other geographies and the approach may be replicable with other perennial cropping systems, e.g., cocoa, which has similar issues of biodiversity degradation and chemical over-use.

Capacitation: Coupled with capacity strengthening of local stakeholders, including outreach activities to cooperatives, advisors and agro-input dealers, this will enable a wider, stronger scale-out to reach more farmers. With capacitational engagement activities at a national level, particularly with FNC, the project will lay the foundation for significant scaling-out to reach a high number of farmers.

## Section 7 - Risk Management

#### Q22. Risk Management

Please outline the 6 key risks to achievement of your Project Outcome and how these risks will be managed and mitigated, referring to the Risk Guidance. This should include at least one Fiduciary, one Safeguarding, and one Delivery Chain Risk.

Risk Description	Impact	Prob.	Gross Risk	Mitigation	Residual Risk
Fiduciary (financial)				Regular review of costs against budget to ensure that costs and progress are effectively managed	
Cost of project implementation higher than secured budget	Н	L	Μ	Regular monitoring and escalation for remedial action as part of overall project management	L
				Induction for all new staff includes safeguarding policy	
Safeguarding	Н	I	L	All staff sign to confirm they have read and understood the safeguarding policy	
Partner policies not followed		-	L	All partners provide safeguarding policy are via their intranet/website	L
				Regular safeguarding updates and training for all staff	
Delivery Chain				Work with Local Partners at early	
Availability of skilled field staff in Aguadas, Colombia, reducing farmer engagement	Н	L	Μ	stage to identify risks of staff shortage	L

<b>Risk 4</b> Lack of access to key external data sources (e.g., weather data, satellite data)	Н	L	L	Multiple sources are available (e.g., ECMWF, NOAA). Ensure the developed systems and algorithms do not depend upon specific datasets but are generic enough to accept input from multiple sources	L
<b>Risk 5</b> Working in post-conflict areas where staff may be in danger if political will changes	н	L	М	International staff will work alongside local Local Partners' staff who can guide then in case of an emergency	L
<b>Risk 6</b> Lack of cohesion between project partners	М	L	L	Lack of cohesion to be avoided at the kick-off meeting and face to face workshops twice a year along with regular teleconferences and a lead partner in each company	L

## Q23. Project sensitivities

Please indicate whether there are sensitivities associated with this project that need to be considered if details are published (detailed species location data that would increase threats, political sensitivities, prosecutions for illegal activities, security of staff etc.). Please note your response to this question won't influence the outcome of your application.

⊙ No

## Section 8 - Workplan

### Q24. Workplan

Provide a project workplan that shows the key milestones in project activities.

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## **Section 9 - Monitoring and Evaluation**

#### Q25. Monitoring and evaluation (M&E)

Describe how the progress of the project will be monitored and evaluated, making reference to who is responsible for the project's M&E.

Darwin Initiative projects are expected to be adaptive and you should detail how the monitoring and evaluation will feed into the delivery of the project including its management. M&E is expected to be built into the project and not an 'add on'. It is as important to measure for negative impacts as it is for positive impact. Additionally, please indicate an approximate budget and level of effort (person days) to be spent on M&E (see Finance Guidance).

CABI will have overall responsibility for the project's M&E, although some components will be done in collaboration with partners and stakeholders. Baselines will be undertaken before activities on the ground start and changes monitored throughout the project, with data related to gender inclusivity disaggregated by sex and age. The pilot project collected some baseline datasets of value to the proposed project which will be combined with new data. For example, the pilot collected data on the farmer cohort's knowledge of biopesticides, which will be used when assessing awareness and capacity strengthening activities in the present project. In addition, the pilot project collected data on women farmer preference for the mechanisms by which they receive information, for example SMS was preferred over Messaging apps by both younger and older groups. M&E in relation to biodiversity conservation on the coffee farms, will be based on comprehensive protocols developed by CABI and partners. The M&E will integrate the expertise of ecologists from both CABI and Local Partners. A set of parameters regarding vegetation and key indicator species will be collected using a standardized protocol on each farm, throughout the project duration. This data, combined with yield, pest and treatment data will be combined to assess the impact of implementing the CBB alert and its complementary resources. This will be done over multiple cropping seasons. M&E of human well-being as well as enhanced awareness and capacity, including parameters related to poverty alleviation and human health will be collected from both the farmer cohort and neighbouring farmers at points throughout the project, integrating the expertise of social scientists and economists from CABI. M&E data of biodiversity conservation and human well-being will be analysed to search for patterns between the two. Care will be taken to align M&E with ongoing activities in the target region, e.g., with the strategic plans of PNGIBSE. Also, as with all other activities in this project, M&E activities will be reviewed and, if necessary, adapted during the project's lifetime

tal project budget for M&E (£)	
(this may include Staff and Travel and Subsistence Costs)	
Total project budget for M&E (%)	
(this may include Staff and Travel and Subsistence Costs)	•
Number of days planned for M&E	40

## Section 10 - Logical Framework

### Q26. Logical Framework (logframe)

Darwin Initiative projects will be required to monitor and report against their progress towards their Outputs and Outcome. This section sets out the expected Outputs and Outcome of your project, how you expect to measure progress against these and how we can verify this.

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#### Impact:

Productive, healthy and safe Colombian coffee farms reconciling biodiversity conservation and poverty alleviation through digital innovation, equitable gender opportunities and biological pest management

#### Outcome:

Smallholder livelihoods, farm biodiversity, farm safety and female empowerment improved through digital innovation, equitable gender opportunities and biological pest management

#### **Project Outputs**

#### Output 1:

1. CBB digital tool implementated and field tested across multiple cropping seasons

#### Output 2:

2. Enhanced engagement with key stakeholders at local and national level

#### Output 3:

3. Enhanced local and national capacity in and awareness of biodiversity conservation and biopesticides

#### Output 4:

No Response

#### Output 5:

No Response

#### Do you require more Output fields?

It is advised to have less than 6 Outputs since this level of detail can be provided at the activity level.

🛈 No

#### Activities

## Each activity is numbered according to the Output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1.

1.1 Design, implementation and training on data capture process for biopesticide vs chemical applications, CBB numbers and crop yields

1.2 Design, implementation and training on data capture process for biodiversity indicators

- 1.3 Install and run CBB alert on the project farms
- 1.4 Data capture across multiple cropping seasons
- 2.1 Facilitate workshop with farmer cohort to co-design and produce outreach resources (posters and movie)
- 2.2 Facilitate stakeholder workshops (local and national level) on gender sensitives
- 3.1 Weekly visits of project partners to cohort farms
- 3.2 Design and facilitate stakeholder training on biopesticides and biodiversity conservation
- 3.3 Design and facilitate workshops to deliver SMS series for local capacity building
- 3.4 Design and facilitate data-sharing workshops at a national level

## Section 11 - Budget and Funding

### Q27. Budget

Please complete the appropriate Excel spreadsheet, which provides the Budget for this application. Some of the questions earlier and below refer to the information in this spreadsheet.

& BCF-Budget-over-£100k-MASTER-Aug23 (1)

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- ③ 13:34:55
- 🗴 xlsx 95.72 KB

#### Q28. Alignment with other funding and activities

This question aims to help us understand how familiar you are with other work in the geographic/thematic area, and how this proposed project will build on or align with this to avoid any risks of duplicating or conflicting activities.

## Q28a. Is this new work or does it build on existing/past activities (delivered by anyone and funded through any source)?

• Development of existing/past activities

#### Please give details.

The proposed project builds on past activities. Specifically, the partners implemented a pilot project under the Prosperity Fund in Colombia which worked with the cohort of 20 women coffee farmers to produce the CBB emergence model, whilst also engaging with higher level stakeholders, including FNC, a local cooperative and advisors within the Nespresso AAA Sustainable Quality<sup>™</sup> Program. The proposed project will continue working with the established cohort of women farmers, as well as continue, and build on, engagement with the higher-level stakeholders

## Q28b. Are you aware of any current or future plans for work in the geographic/thematic area to the proposed project?

• Yes

## Please give details explaining similarities and differences, and explaining how your work will be additional, avoiding duplicating and conflicting activities and what attempts have been/will be made to co-operate with and share lessons learnt for mutual benefit.

Relatively recently CABI has initiated its Plantwise project in Colombia, with an emphasis on capacity development of agronomic service providers in the cocoa sector. The project is implemented under the COLCO-Colombian Cocoa Control System and is working with three of the main enterprises involved in cocoa production and commercialization in the country. Whilst the activities are focussed on cocoa not coffee there are complementarities in the approaches and methodologies with the proposed project that will strengthen the delivery of the latter. The cocoa project involves the training of local advisors on sustainable pest management and the piloting of "plant clinics" to deliver specially tailored information for smallholder farmers.

#### Q29. Value for Money

Please demonstrate why your project is good value for money in terms of impact and cost-effectiveness of each pound spend (economy, efficiency, effectiveness and equity). Why is it the best feasible project for the amount of money to be spent? Please make sure you read the guidance documents, before answering this question.

The project will be led and managed by CABI, who have extensive experience in managing and running capacity development and research consortiums of this nature on an international scale to achieve value for money for funding partners, with robust financial and project management systems in place. Project partners CABI, Local Partners and Assimila have worked together throughout the pilot CBB project and have a highly relevant understanding and estimation of the likely costs involved in delivering the proposed project. Costs for staff time, materials and travel reflect the range of capacity strengthening activities necessary to implement this project and engage with national and local stakeholders, as well as data collection, analysis and model calibration. CABI regularly benchmarks salary costs at different grades across similar organisations in its countries of operation to ensure they are competitive and reflect the current market. Material costs are planned to cover guidance documents and training materials required for capacity strengthening activities with national and local stakeholders. Material costs are planned to cover guidance documents and training materials required for capacity strengthening activities with national and local stakeholders. Material costs also cover costs for sending SMS alerts to cooperatives and farmers. CABI has thoroughly considered issues of economy (total cost), efficiency (making best use of available resources and leveraging other areas of work), effectiveness (ensuring enhanced and sustained action on climate mitigation), and equity (ensuring impacts reach poor and vulnerable coffee farmers, particularly women). These '4 Es' will be integral to value for money assessment in the project's MEL approach.

### Q30. Capital items

If you plan to purchase capital items with Darwin funding, please indicate what you anticipate will happen to the items following project end. If you are requesting more than 10% capital costs, please provide your justification here.

Some capital costs are required for participatory video equipment, including a camcorder, microphone and headphones, however the costs are below 10%. Post project the equipment will be housed at Local Partners in Colombia.

## Section 12 - Outputs, Open Access, Ethics & Safeguarding

## Q31. Safeguarding

All projects funded under the Biodiversity Challenge Funds must ensure proactive action is taken to promote the welfare and protect all individuals involved in the project (staff, implementing partners, the public and beneficiaries) from harm. In order to provide assurance of this, projects are required to have specific procedures and policies in place.

Please upload the following required policies:

- <u>Safeguarding Policy</u>: including a statement of commitment to safeguarding and a zero tolerance statement on bullying, harassment and sexual exploitation and abuse.
- <u>Whistleblowing Policy</u>: which details a clear process for dealing with concerns raised and protects whistle blowers from reprisals.
- <u>Code of Conduct</u>: which sets out clear expectations of behaviours inside and outside the workplace for all involved in the project and makes clear what will happen in the event of non-compliance or breach of these standards, including compliance with IASC 6 Principles.

If any of these policies are integrated into a broader policy document or handbook, please upload just the relevant or equivalent sub-sections to the above policies, with (unofficial) English translations where needed.

Please outline how (a) beneficiaries, the public, implementing partners, and staff are made aware of your safeguarding commitment and how to confidentially raise a concern, (b) safeguarding issues are investigated, recorded and what disciplinary procedures are in place when allegations and complaints are upheld, (c) you will ensure project partners uphold these policies.

## If your approach is currently limited or in the early stages of development, please clearly set out your plans address this.

All CABI staff are required to read and accept a range of policies and ensure that these are implemented in all work. CABI's Safeguarding Policy applies to all CABI employees, officers, consultants, contractors, casual workers and agency workers when acting on behalf of CABI. The Policy details how to report a safeguarding concern, offering several channels to do so, depending on the circumstances.

CABI's designated Safeguarding Lead maintains an up-to-date safeguarding incident log. This is used to reflect on vulnerabilities and their mitigation, to learn from safeguarding incidents, to notify authorities where necessary and to report to donors and other key stakeholders. If a safeguarding concern has been raised, the appropriate management carries out an initial assessment to determine the scope of any investigation. The investigation process will vary according to the circumstances of each case but will always seek to ensure that any concern raised is investigated thoroughly, promptly and confidentially. Depending on the circumstances, the investigation may involve staff from HR and, if appropriate, external support.

In our due diligence process we ensure that our partners have similar policies in place and agree to adhere to the business standards delineated in our own policies.

## Q32. Ethics

#### Outline your approach to meeting the <u>key principles of good ethical practice</u>, as outlined in the guidance.

The project will view its data governance approach through a responsible data use lens informed by approaches such as the data ethics canvas developed by ODI and tailored for use in agriculture and environment contexts.

The project will follow CABI's Ethics Review process required for all research undertaken by CABI that involves human subjects. The review process is conducted through the Ethics Review Board (ERB), which in addition to protecting the right of research participants, will ensure that all research complies with national and international legislation and regulations, including data protection laws and CABI's data sharing toolkit. The ERB will focus on the possible benefits of the research versus the risk to the participants. The ERB process ensures: Validity of the research, demonstrating that the work is essential and will yield results that contribute to science; that the methods fit the aims of the project and guarantee the quality and integrity of the results; that the Sampling strategy outlines why a particular group of participants was/wasn't selected; Voluntary participation and prior informed consent; Confidentiality and anonymity of participants; Conflicts of interests; and Cultural sensitivities, showing how the project work will take into account cultural, religious, social or gender sensitivities.

## Section 13 - British Embassy or High Commission Engagement

## Q33. British embassy or high commission engagement

It is important for UK Government representatives to understand if UK funding might be spent in the project country/ies. Please indicate if you have contacted the relevant British embassy or high commission to discuss the project and attach details of any advice you have received from them.

• Yes

#### Please attach evidence of request or advice if received.

- A FCDO British Embassy correspondanceFinal
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- ① 17:54:16
- pdf 1.01 MB

## Section 14 - Project Staff

#### Q34. Project staff

Please identify the core staff (identified in the budget), their role and what % of their time they will be working on the project.

Name (First name, surname)	Role	% time on project	1 Page CV or job description attached?
Steve Edgington	Project Leader	20	Checked
Kate Constantine	Gender and Inclusion lead	12	Checked
Alyssa Lowry	Biological Data Scientist	15	Checked
Gerardo López Saldaña	Earth Observation Applications Scientist	10	Checked

#### Do you require more fields?

• Yes

Name (First name, surname)	Role	% time on project	1 Page CV or job description attached?
Marcella Jaramillo	In-country lead	10	Checked
No Response	No Response	0	Unchecked
No Response	No Response	0	Unchecked
No Response	No Response	0	Unchecked
No Response	No Response	0	Unchecked
No Response	No Response	0	Unchecked

No Response	No Response	0	Unchecked
No Response	No Response	0	Unchecked

Please provide 1 page CVs (or job description if yet to be recruited) for the project staff listed above as a combined PDF.

去 <u>CV master file</u>

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🕒 pdf 517.48 KB

Have you attached all project staff CVs?

• Yes

## **Section 15 - Project Partners**

#### **Q35. Project Partners**

Please list all the Project Partners (including the Lead Partner who will administer the grant and coordinate delivery of the project), clearly setting out their roles and responsibilities in the project including the <u>extent of their engagement so far</u>.

Lead Partner name:	CABI
Website address:	https://www.cabi.org/
Why is this organisation the Lead Partner, and what value to they bring to the project?	The project will be led and managed by CABI, who have extensive experience in managing and running capacity development and research consortiums of this nature on an international scale to achieve value for money for funding partners, with robust financial and project management systems in place. The project will be managed by Dr Steve Edgington, a
(including roles, responsibilities and capabilities and capacity):	senior biopesticide specialist and Biopesticides Team Leader at CABI with over 25 years' experience working on organisational capacity building and biological control of crop pests. He will also oversee development and enhancement of the BioProtection Portal Colombia website. CABI and Dr Edgington lead the earlier CBB alert pilot project.
International/In-country Partner	⊙ International
Allocated budget (proportion or value):	
Representation on the Project Board (or other management structure)	⊙ Yes
Have you included a Letter of Support from the Lead Partner?	⊙ Yes

### Do you have partners involved in the project?

• Yes

1. Partner Name:	Assimila
Website address:	https://www.assimila.earth/
What value does this Partner bring to the project? (including roles, responsibilities and capabilities and capacity):	Assimila is a consultancy company focussed on bringing the benefits of advanced science and technology, particularly EO, to national and local stakeholders seeking to monitor, understand, and predict the environment. Through strong links with the research community they help to identify the best technology available support its implementation through technical consultancy, project management, strategy and policy development, project and programme design and evaluation and business case and cost benefit analysis. The company is based on the University of Reading campus and has established close links and joint projects with several leading UK and international universities, including CABI, through which they have provided EO expertise for a number of high profile projects. Gerardo López Saldaña is Assimila's Earth Observation Applications Scientist with over 18 years' experience in developing novel products, including modelling land use and land cover change and will lead the project's data analysis and climate modelling. Assimila were part of the earlier project that developed the pilot CBB alert.
International/In-country Partner	⊙ International
Allocated budget:	
Representation on the Project Board (or other management structure)	⊙ No
Have you included a Letter of Support from this partner?	● Yes

2. Partner Name:	Local Partners (Previously called Cafexport)
Website address:	https://cafexport.weebly.com/
What value does this Partner bring to the project? (including roles, responsibilities and capabilities and capacity):	Local Partners is a Colombian-based coffee trading company, which has positively impacted over 6,800 farmer livelihoods, local communities and the environment through strengthening the coffee value chain. They work with more than 15 Colombian cooperatives and public and private organisations, including Nespresso, Starbucks and Keurig, to implement various sustainability programmes in the coffee sector, such as the Nespresso AAA Sustainable Quality <sup>™</sup> Program. Marcela Jaramillo is director of projects and engages local and national institutions in Local Partners' programmes and will lead on national engagement for this project. Local Partners were the in-country lead for the earlier project that developed the pilot CBB alert.

International/In-country Partner	⊙ In-country
Allocated budget:	
Representation on the Project Board (or other management structure)	
Have you included a Letter of Support from this partner?	● Yes

3. Partner Name:	No Response
Website address:	No Response
What value does this Partner bring to the project?	No Response
(including roles, responsibilities and capabilities and capacity):	
International/In-country Partner	O International O In-country
Allocated budget:	0
Representation on the Project Board (or other management structure)	O Yes O No
Have you included a Letter of Support from this partner?	O Yes O No

4. Partner Name:	No Response
Website address:	No Response
What value does this Partner bring to the project?	No Response
(including roles, responsibilities and capabilities and capacity):	
International/In-country Partner	O International O In-country
Allocated budget:	0
Representation on the Project Board	O Yes
(or other management structure)	O No
Have you included a Letter of	O Yes
Support from this partner?	O No

5. Partner Name:	No Response
Website address:	No Response
What value does this Partner bring to the project?	No Response
(including roles, responsibilities and capabilities and capacity):	
International/In-country Partner	O International O In-country
Allocated budget:	0
Representation on the Project Board (or other management structure)	O Yes O No
Have you included a Letter of Support from this partner?	O Yes O No

6. Partner Name:	No Response
Website address:	No Response
What value does this Partner bring to the project? (including roles, responsibilities and capabilities and capacity):	No Response
International/In-country Partner	O International O In-country
Allocated budget:	0
Representation on the Project Board (or other management structure)	O Yes O No
Have you included a Letter of Support from this partner?	O Yes O No

If you require more space to enter details regarding Partners involved in the project, please use the text field below.

No Response

Please provide a <u>combined PDF</u> of all Letters of Support for all project partners or explain why this has not been included.

☆ Letters of Support combined
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 ⊘ pdf 373.17 KB

## Section 16 - Lead Partner Track Record

### Q36. Lead Partner Capability and Capacity

Has your organisation been awarded Biodiversity Challenge Funds (Darwin Initiative, Darwin Plus or Illegal Wildlife Trade Challenge Fund) funding before (for the purposes of this question, being a partner does not count)?

• Yes

Please provide details of the most recent awards (up to 6 examples).

Reference No	Project Leader	Title
29-012	Ivan Rwomushana	Protecting biodiversity through biocontrol of papaya mealybug in East Africa
DPLUS102	Norbert Maczey	Saving Tristan's only native tree and its associated unique buntings
DARCC013	René Eschen	Coordinated invasive plant management to protect Tanzanian biodiversity and livelihoods
DARPP220	David Minter	Quinoa-associated fungi in the Andes: diversity, conservation and sustainable use
22-001	Steve Edgington	Rescuing and restoring the native flora of Robinson Crusoe Island
15-004	Dave Moore	Conserving and utilising entomopathogenic fungi and nematodes in Chile

## Have you provided the requested signed audited/independently examined accounts?

• Yes

## Section 17 - Certification

#### Q36. Certification

If this section is incomplete the entire application will be rejected.

Please note if you do not upload the relevant materials below your application may be ineligible.

#### On behalf of the

Company

#### of

CABI

#### I apply for a grant of

£199,991.00

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful.

(This form should be signed by an individual authorised by the applicant institution to submit applications and sign contracts on their behalf.)

- I have enclosed CVs for key project personnel, a cover letter, letters of support, a budget, logframe, theory of change, Safeguarding and associated policies, and project workplan.
- Our last two sets of signed audited/independently verified accounts and annual report (or other financial evidence see Finance Guidance) are also enclosed.

Checked

Name	Dr Steve Edgington	
Position in the organisation	Biopesticides Team Leader	
Signature (please upload e- signature)	<ul> <li>☆ Steve Edgington signature</li> <li>ᡤ 17/10/2023</li> <li>③ 13:17:38</li> <li>☑ jpg 4.14 KB</li> </ul>	
Date	20 October 2023	

#### Please attach the requested signed audited/independently examined accounts.

选 CABI-financial-statement-2022	选 CABI financial statement 2021
菌 05/10/2023	菌 05/10/2023
<b>(</b> ) 20:29:56	① 20:28:19
🗅 pdf 1.03 MB	pdf 1.39 MB

#### Please upload the Lead Partner's Safeguarding Policy, Whistleblowing Policy and Code of Conduct as a PDF

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	05/10/2023		05/10/2023
U	20:27:18	0	20:26:48
ß	pdf 431.38 KB	Å	pdf 453.99 KB
公	CABI+Whistleblowing+policy+2022	公	Safeguarding+Policy+2023
і	05/10/2023	▦	05/10/2023
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## Section 18 - Submission Checklist

## **Checklist for submission**

I have provided actual start and end dates for my project.CheckedI have provided my budget based on UK government financial years i.e. 1 April - 31 March and in GP.CheckedI have checked that the budget is complete, correctly adds up and I have included the correct final total at the start of the application.CheckedThe application has been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).CheckedI have attached the below documents to my application: • a cover letter from the Lead Partner, outlining how any feedback received at has been addressed where relevant, as a single PDF.Checkedmy completed logframe as a PDF using the template providedChecked• my 1 page Theory of Change as a PDF which includes the key elements listed in the guidance evidence - see Finance Guidance, or provided an explanation if notChecked• my completed workplan as a PDF using the template provided.Checked• my completed workplan as a PDF using the template provided.Checked• my completed workplan as a PDF using the template provided.Checked• my completed workplan as a PDF using the template provided.Checked• a copy of the Lead Partner's Safeguarding Policy. Whistleblowing Policy and Code of Conduct (Question 31).Checked• 1 page CV or job description for all the Project Staff identified at Question 34, including the Project Leader, or provided an explanation of why not, combined into a single PDF.Checked• a letter of support from the Lead Partner and partner(s) identified at Question 35, or an explanation of why not, as a single PDF.Checked• a letter of support from the Le	I have read the Guidance, including the "Darwin Initiative Guidance", "Monitoring Evaluation and Learning Guidance", "Standard Indicator Guidance", "Risk Guidance", and "Finance Guidance".	Checked
Inverprovided my budget based on UK government financial years i.e. 1 April - 31 March and in GBP.CheckedIf have checked that the budget is complete, correctly adds up and I have included the correct final total at the start of the application.CheckedThe application has been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).CheckedI have attached the below documents to my application: 	I have read, and can meet, the current Terms and Conditions for this fund.	Checked
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#### We would like to keep in touch!

Please check this box if you would be happy for the lead applicant (Flexi-Grant Account Holder) and project leader (if different) to be added to our mailing list. Through our mailing list we share updates on upcoming and current application rounds under the Darwin Initiative and our sister grant scheme, the IWT Challenge Fund. We also provide occasional updates on other UK Government activities related to biodiversity conservation and share our quarterly project newsletter. You are free to unsubscribe at any time.

Checked

Data protection and use of personal data

Information supplied in the application form, including personal data, will be used by Defra as set out in the **Privacy Notice**, available from the <u>Forms and Guidance Portal</u>.

This **Privacy Notice must be provided to all individuals** whose personal data is supplied in the application form. Some information may be used when publicising the Darwin Initiative including project details (usually title, lead partner, project leader, location, and total grant value). Project Title:

#### Guidance – please delete before submitting

Provide a **Workplan** that shows the key milestones in project activities. Complete the following table as appropriate to describe the intended workplan for your project. Quarters are based on UK FYs (**1 April – 31 March** - Q1 therefore starts April 2024).

Please add/remove columns to reflect the length of your project. For each activity (add/remove rows as appropriate) indicate the number of months it will last, and shade only the quarters in which an activity will be carried out. The activity numbers should correspond to the activities in your logical framework (logframe). The workplan can span multiple pages if necessary.

This template covers multiple Biodiversity Challenge Funds schemes, so ensure you check the eligible dates/project length for the scheme you are applying to and feel free to delete later years if not applicable for your project.

	Activity	No. of	Year 1 (24/25)			5)	Year 2 (25/26)			
	Activity	months	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 1	CBB digital tool implemented and field tested across multiple cropping seasons									
1.1	Design, implementation and training on data capture process for biopesticide vs chemical applications, CBB numbers and crop yields	1								
1.2	Design, implementation and training on data capture process for biodiversity indicators	1								
1.3	Install and run CBB alert on the project farms	20								
1.4	Data capture across multiple cropping seasons	20								
Output 2	Enhanced engagement with key stakeholders at local and national level									

	Activity	No. of	Year 1 (24/25)			Year 2 (25/26)				
	Activity	months	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.1	Facilitate workshop with farmer cohort to co-design outreach resources (poster and movie)	1								
2.2	Facilitate stakeholder workshops (local and national level) on gender sensitives	2								
Output 3	Enhanced local and national capacity in and awareness of biodiversity conservation and biopesticides									
3.1	Weekly visits of project partners to cohort farms	24								
3.2	Design and facilitate stakeholder training on biopesticides and biodiversity conservation	2								
3.3	Design and facilitate workshops to deliver SMS series for local capacity building	1								
3.4	Design and facilitate gender sensitivity workshops for national stakeholders	1								
3.5	Design and facilitate data- sharing workshops at a national level	1								
Output 4	Project management, M&E									
4.1	Partner/Technical updates	24								
4.2	Project review meetings and Darwin Initiative reporting	24								

Project Summary	SMART Indicators	Means of Verification	Important Assumptions		
Impact: Productive, healthy and safe	Colombian coffee farms reconciling biodi	versity conservation and poverty allev	viation through digital innovation,		
equitable gender opportunities and bio					
Outcome: Smallholder livelihoods, farm biodiversity, farm safety and female empowerment improved through digital innovation, equitable gender opportunities and biological pest management	0.1 Number of female farmers benefitting from improved sustainable agriculture practices and that are more resilient to weather shocks and climate trends (16) [DI-D11] 0.2 Number of female farmers reporting they are applying new capabilities (skills and knowledge) two or more months after training (16) [DI-A04] 0.3 Number of stabilised/improved species populations (abundance/distribution) within the project area (4) [DI-D04];	<ul> <li>0.1 Baseline data, monitoring and end of project evaluation</li> <li>0.2 Baseline and end-of project evaluation focusing on level of implementation</li> <li>0.3 Project reports and datasets</li> </ul>	Female farmer cohort utilising/applying the digital innovation supported by the project; There will be no crises (e.g. COVID, human conflicts) that prevent project implementation.		
Outputs: 1. CBB digital tool implemented, and field tested across multiple cropping seasons	<ul> <li>1.1 Number of datasets published for key biodiversity indicators (4 datasets) [DI-C02]</li> <li>1.2 Number of farmers implementing capture and assess methods for CBB (16)</li> <li>1.3 Number of datasets produced on coffee production (2 per season per farm)</li> <li>1.4 Number of farmers reporting a decrease in unsustainable practices as a result of project activities (16) [DI-B09]</li> </ul>	<ul><li>1.1 Project records</li><li>1.2 Field record books</li><li>1.3 Field record books</li><li>1.4 Farmer surveys</li></ul>	Farmers see the value of the CBB alert and are willing to invest their time and resources to support implementation through full project duration. Key local and national stakeholders able to embrace and facilitate the utilization of the CBB alert.		

## Project Title: Innovation in Colombian coffee fields

2. Enhanced engagement with key stakeholders at local and national level	<ul> <li>1.1 Number of farmers completed workshop to design outreach strategy and resources (16) [DI- A01]</li> <li>1.2 Number of farmers see gender sensitive outreach posters (estimate 1000)</li> <li>1.3 Number of farmers see gender sensitive outreach movie (estimate 1000)</li> <li>1.4 Number of local and national stakeholders completed structured workshop on gender sensitivity (50) [DI-A01]</li> </ul>	<ul><li>1.1 Attendance record</li><li>1.2 Poster copies</li><li>1.3 Movie copy</li><li>1.4 Attendance record</li></ul>	Suitable and available times and venues found to accommodate attendees; Outreach resources produced are appropriate for the local context; The local cooperative agrees to display the posters.
3. Enhanced local and national capacity in and awareness of biodiversity conservation and biopesticides	<ul> <li>1.1 Number of in-person farm visits by project partners (minimum 60 visits per farm)</li> <li>1.2 Number of local stakeholders with enhanced knowledge of biodiversity conservation and biopesticides following structured training (25)</li> <li>1.3 Number of national stakeholders completed structured workshops on data-sharing (10) [DI-A01]</li> <li>1.4 Number of government federations/departments completed structured training on biodiversity conservation and biopesticides (2) [DI-A07]</li> <li>1.5 Number of female farmers with improved access to services and resources for improved health and well-being (16) [DI-A06]</li> </ul>	<ul> <li>1.1 Project log book, including farmer sign-off</li> <li>1.2 Project log books; training assessments; and attendance records</li> <li>1.3 Project log books and attendance records</li> <li>1.4 Project log books and attendance records</li> <li>1.5 Record books and attendance records</li> <li>1.6 Project records, farmer survey/feedback, SMS dashboard records</li> </ul>	Local and national stakeholders engage and send staff to workshops

#### Activities:

1.1 Design, implementation and training on data capture process for biopesticide vs chemical applications, CBB numbers and crop yields

1.2 Design, implementation and training on data capture process for biodiversity indicators

1.3 Install and run CBB alert on the project farms

1.4 Data capture across multiple cropping seasons

2.1 Facilitate workshop with farmer cohort to co-design and produce outreach resources (posters and movie)

2.2 Facilitate stakeholder workshops (local and national level) on gender sensitivities

3.1 Weekly visits of project partners to cohort farms

3.2 Design and facilitate stakeholder training on biopesticides and biodiversity conservation

3.3 Design and facilitate workshops to deliver SMS series for local capacity building

3.4 Design and facilitate data-sharing workshops at a national level