

DIR28S2\1015

More bees: Supporting agrobiodiversity and livelihoods in Amhara, Ethiopia

Overuse of pesticides is decimating bees and other beneficial insects. This undermines the livelihoods of farmers and beekeepers. Working with farmers, entomologists and extension officers near Lake Tana, Ethiopia – this Project promotes agro-ecological farming methods, focusing on integrated pest management practices. Reducing pesticide use enables smallholders to sustainably increase and diversify their income through beekeeping. Farmers learn to identify and protect pollinators, to manage pests without relying only on toxic chemicals, and to keep bees using natural, low-cost methods.

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Section 1 - Contact Details

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Section 2 - Title, Ecosystems, Approaches & Summary

Q3. Title:

More bees: Supporting agrobiodiversity and livelihoods in Amhara, Ethiopia

What was your Stage 1 reference number? e.g. DIR28S1\1123

DIR28S1\1249

Q4. Key Ecosystems, Approaches and Threats

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 (agric., plantations and urban)

Biome 2

Shrublands & shrubby woodlands

Biome 3

Freshwater (streams, rivers and lakes)

Conservation Action 1

Land/water management (area, invasive control, restoration)

Conservation Action 2

Education & awareness (incl. training)

Conservation Action 3

Livelihood, economic & other incentives (incl. conservation payments)

Threat 1

Agriculture & aquaculture (incl. plantations)

Threat 2

Pollution (domestic, commercial, agricultural)

Threat 3

Natural system modifications (fires, dams)

Q5. Summary

Please provide a brief summary of your project, 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.

Please write this summary for a non-technical audience.

Overuse of pesticides is decimating bees and other beneficial insects. This undermines the livelihoods of farmers and beekeepers. Working with farmers, entomologists and extension officers near Lake Tana, Ethiopia – this Project promotes agro-ecological farming methods, focusing on integrated pest management practices. Reducing pesticide use enables smallholders to sustainably increase and diversify their income through beekeeping. Farmers learn to identify and protect pollinators, to manage pests without relying only on toxic chemicals, and to keep bees using natural, low-cost methods.

Section 3 - Title, Dates & Budget Summary

Q6. Country(ies)

Which eligible host country(ies) will your project be working in? Where there are more than 4 countries that your project will be working in, please add more boxes using the selection option below.

Country Ethiopia
1

Country *No Response*
2

Country *No Response*
3

Country *No Response*
4

Do you require more fields?

No

Q7. Project dates

Start date:

01 June 2022

End date:

28 February 2025

Duration (e.g. 2 years, 3 months):

2 years, 10 months

Q8. Budget summary

Year:	2022/23	2023/24	2024/25	Total request
Amount:	£132,824.00	£113,611.00	£106,492.00	£ 352,927.00

Q9. Proportion of Darwin Initiative budget expected to be expended in eligible countries: %



Q10a. Do you have matched funding arrangements?

Yes

What matched funding arrangements are proposed?

Bees for Development Trust UK will make a contribution from unrestricted funds.
Bees for Development Ethiopia will make a financial contribution through cost-sharing arrangements.
Beekeepers in the target community will contribute materials and labour as in-kind support.
In-kind support received from Mike Edwards, pollination expert

Q10b. Total confirmed & unconfirmed matched funding (£)



Q10c. If you have a significant amount of unconfirmed matched funding, please clarify how you fund the project if you don't manage to secure this?

No significant amount of unconfirmed match funding

Section 4 - Problem statement

Q11. Problem the project is trying to address

Please describe the problem your project is trying to address in terms of biodiversity and its relationship with poverty. For example, what are the drivers of loss of biodiversity that the project will attempt to address? Why are they relevant, for whom? How did you identify these problems?

Please cite the evidence you are using to support your assessment of the problem (references can be listed in your additional attached PDF document which can be uploaded at the bottom of the methodology page).

Major driver of biodiversity loss in the area is agricultural intensification. Studies [refs 1,2,3] involving farmer interviews and discussions, by BfD and partners since 2015 reveal that chemical use is the only pest control method used in target

area. Recent assessment [3] confirms that the main pesticides used on vegetable and pulse crops are highly toxic to bees and other pollinators, including Dimethoate, Profenofos, and Thiamethoxam. Underlying reasons for overreliance on pesticides include farmers' lack of knowledge about (i) alternative practices (ii) role of natural enemies of crop pests (iii) role of bees and pollinators in fruit/seed development and (iv) risks of developing resistance to pesticides. Most evident problem perceived by smallholders is that beekeeping, previously important for income, is becoming non-viable [2,3,4]. Where viable, beekeeping contributes up to 40% of household income [5]. In the area, farmers report keeping ten times fewer bee colonies, attributing losses to pesticides [3]. Other problems of pesticides reported by farmers include harm to human health and high cost [6,7,30]. 26% of population live below national poverty line. Importance of bees and other pollinators is undisputed [8]. Pollinator declines and consequences have received much attention in developed countries, yet are much less studied in developing countries [9], including Ethiopia. Yet, various studies show where pesticides are used, pollinators are at risk [10]. Recent investigation [11] shows that EU and UK are shipping thousands of tonnes of neonicotinoid pesticides to poorer countries, years after banning the chemicals to protect bees and in Kenya some farmers are now hand pollinating [12]. Most Ethiopian farmers do not understand pollination [1,2,3,13]. The loss of honey bees noticed by beekeepers, is signalling a bigger problem including pollination deficits reducing yields and quality of crops and future risks of breakdown in the agroecosystem, resulting in unmanageable pest outbreaks. Weak extension services about sustainable agriculture and inattention to negative impacts of pesticides exacerbate the issue. In target area, pollinators are essential for horticulture, oil-seeds and pulses on which all farmers rely for food and income. Government policy silent on the risks of pollinator-harming pesticides. Ethiopia's Ten Year Development Plan (2021-2030) aims to increase honey production from 59,000 to 152,000 tons and to increase horticulture production from 18 to 261 million quintals [14]. Many horticultural crops are pollinator dependant and one study estimated the vulnerability of Ethiopian agriculture due to lack of pollinators was 16% in the 2015/16 season [15]. Ethiopia's Ten Year Development Plan [14] aims to increase pesticide usage from 15,000 to 100,000 litres against invasive pests and from 4.9 to 5.5 million litres against regular pests. Action is relevant for smallholders by enhancing pollination, increasing crop yields, increasing honey yields for income and reducing spend on pesticides. The Project will address underlying problems by 1) building farmers' understanding of agroecosystem, with focus on learning about bees other than honey bees / other pollinators 2) implementing IPM to reduce pesticide use 3) restoring failing honey bee populations and 4) supporting government policies and actions that conserve biodiversity & sharing learning.

Section 5 - Darwin Objectives and Conventions

Q12. Biodiversity Conventions, Treaties and Agreements

Q12a. Your project must support the commitments of one or more of the agreements listed below.

Please indicate which agreement(s) will be supported and describe which objectives your project will address.

- Convention on Biological Diversity (CBD)
- Global Goals for Sustainable Development (SDGs)

Q12b. National and International Policy Alignment

Please detail how your project will contribute to national policy (including NBSAPs, NDCs, NAP etc.) and in turn international biodiversity and development conventions, treaties and agreements that the country is a signatory of.

Ethiopia's National Biodiversity Strategy and Action Plan [ENBSAP] 2015-2020 recognises beneficial insects under the animal biodiversity directorate. The vision of the Plan is that by 2050, Ethiopia's biodiversity and ecosystems are conserved and sustainably utilized by all sectors providing food security and contributing to poverty eradication and improved quality of life of the Ethiopian people. The Plan recognises that unregulated use of agro-chemicals are a major threat to Ethiopia's biodiversity and ecosystems. This Project will support the conservation and sustainable management of ecosystems which support Ethiopian agriculture.

More specifically:

ENBSAP Strategic Goal A Target 1 - concerns raising awareness amongst public and decision-makers of the value of ecosystem services and biodiversity and of the steps need to conserve biodiversity. The Project can contribute directly to this Target.

ENBSAP Strategic Goal A Target 2 - concerns identifying gaps in regulations, laws and strategies. Output 4 of this Project will contribute to this Target.

ENBSAP Strategic Goal C - concerns safeguarding ecosystems, species and genetic diversity. This Project will reduce harm caused to species which perform essential ecosystem functions and ensure ecosystem integrity in agricultural landscapes. ENBSAP Strategic Goal E Target 14 - concerns increasing the participation of local communities in biodiversity conservation. This Project will contribute to this by raising awareness of the wealth of beneficial insects on farms and the need to protect them.

Ethiopia's Climate Resilient Green Economy National Adaptation Plan includes 18 action points. No. 6. is Improving ecosystem resilience through conserving biodiversity and aims to enhance healthy and well-functioning ecosystems. Although pollinators are not mentioned specifically, this Project will contribute to action point No. 6.

Ethiopia signed the Declaration on the Coalition of the Willing on Pollinators on the 17th of July 2017. It was signed by the Ethiopian Biodiversity Institute to promote Pollinators. This Project has the potential to contribute towards achieving Ethiopia's commitment to promote pollinators.

Ethiopia is fully committed to working towards the Global Goals for Sustainable Development. The Ethiopia Sustainable Development Report 2021 reports that Ethiopia faces major challenges with regard to to SDG 1 (no poverty), 2 (zero hunger) and 15 (life on land) - this Project has the potential to contribute towards these three global goals - through supporting sustainable farm incomes from crops and beekeeping, through supporting the production of nutritious, high-quality foods and through reducing harm caused to insect biodiversity on farms.

This Project meets the aims of the Darwin Initiative. High investment in in-country capacity with excellent opportunity for scaling up results to other areas and other countries - this Project is dealing with a widespread problem, not niche. BfD and PAN work in other countries, so can take learning elsewhere. Focus on invertebrates, a neglected group. Enhancing agrobiodiversity, offering wins for people and wins for nature, and building agricultural systems resilience. Strong focus on building awareness, especially on the role of bees, other pollinators and other beneficial insects in underpinning sustainable farming - where immense gaps currently exist in Ethiopia.

Section 6 - Method, Change Expected, Gender & Exit Strategy

Q13. 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 analysed historical and existing initiatives and are building on or taking work already done into account in project design. Please cite evidence where appropriate.
- The rationale for carrying out this work and a justification of your proposed methodology.
- How you will undertake the work (materials and methods).
- How you will manage the work (roles and responsibilities, project management tools, etc.).

We draw on secondary literature and expertise of Project partners in Ethiopia and UK concerning essential role of bees / other pollinators in resilient farming systems, about harm caused by pesticides, about Integrated Pest Management (IPM) in Africa [16] and in Ethiopia [17] and on our own work uplifting farmers' benefits from sustainable beekeeping.

Based on analysis of this we have designed multi-pronged approach comprising farmer education about agroecology, the introduction of IPM, support for beekeeping and policy analysis.

As emphasised by African Pollinator Initiative [18] understanding is the first step to protecting [19] - hence Project aims to address the very low awareness of beneficial insects in target area. One study of IPM for mango in Ethiopia showed that farmers were more ready to adopt the technology when they were aware of the negative effects of pesticides [16].

Ecosystem walks have been successfully used by PAN in Ethiopia to demonstrate the provisioning, regulating and supporting ecosystem services in local landscapes and will be used in Project [23]. In Malawi, awareness raising work, focussing on helping farmers "see the ecosystem as one thing," has proved key to building agroecological adoption and resilience in smallholder farming [24].

IPM is an effective alternative to using pesticides only, instead using trap crops, monitoring thresholds and boosting populations of pests' natural enemies. IPM has been proven in Africa. Examples include cotton production in Zimbabwe [20], coffee in Uganda [21], and in citrus orchards in South Africa [22]. In Ethiopia Project partner PAN have successfully rolled-out IPM approaches for cotton and vegetables [28, 29], since 2013. Successful IPM adoption depends on finding effective measures for specific contexts/crops and achieving farmer adoption. These two are best achieved simultaneously through the Farmer Field School (FFS) group-based learning process, hence will be used in this Project. This participatory learning approach is based on self-discovery and has been widely used to train farmers about the principles and practices

of IPM with good results [26,27]. PAN-Ethiopia have demonstrated the effectiveness of FFS in introducing IPM in Ethiopia [25].

In providing beekeeping training BfDE will draw on its own work experience of supporting beekeepers using group learning, managing gender roles in beekeeping, linking new beekeepers with experienced mentors, making top-bar hives and proper harvesting methods. Proven to increase farmers' incomes [5].

Undertaking the work

BfDE with offices in Bahir Dar, will deliver this project in two districts, Fogera and Mecha. Partner staff of PAN-Ethiopia will take short flight from Addis to Bahir Dar approx 4 times a year. Project will employ two IPM fieldworkers to operate from BfDE's offices in Bahir Dar: UK partners will provide support remotely and set up a Sharepoint collaborative site to permit shared working and communicate via zoom. Infrequent international travel will occur at key points.

Materials and methods

Output 1. Training will be done in local venues, in Farmer Training Centres (FTCs) and in the field. Guided ecosystem walks will take place in project areas. Farmers and extension workers will learn about bees / other pollinators through fieldwork. Learners will be led by local expert entomologist who will teach observation skills and how to recognise different groups of insects, using magnifying lenses, notebooks and camera. In Year 2 assessors will count pollinator density (number per square metre) using visual observation and tally sheets, in IPM plots and compare densities with normal plots at least 2km distant. Training will be tailored to the different audiences.

Output 2. IPM trials will be conducted, assessed and analysed using Farmer Field School methodology – always affording opportunity for farmer self-discovery and learning. Trials conducted on land belonging to FTCs in 6 villages and on rented land in 2. Trials will test food sprays and use readily available ingredients, buckets and sprayers. Seeds for trap crops at plot margins. Tally sheets for insect groups, recording number per plant or leaf on 10 plants inside plot, each replicate.

Output 3. Beekeepers will be trained in all aspects of sustainable beekeeping, using low-cost, simple effective methods which are also accessible to the poorest. Includes top-bar beekeeping and basket-hive beekeeping. Training will take place at FTCs. Inputs will be provided e.g. protective clothing, buckets, top-bars, tools and starter bee colonies.

Output 4. Workshops will be held in Bahir Dar with key stakeholders with the leverage to continue and scale-up project results. Existing policies will be analysed and understood, gaps identified. Publications and newsletters about beneficial insects and side-effects of agrochemicals will be written and disseminated by print and e-copy, hosted on partners websites.

Q14. Capability and Capacity

How will you support the strengthening of capability and capacity in the project countries at organisational or individual levels, please provide details of what form this will take and the post-project value to the country.

On an individual level farmers will have the capacity to adopt IPM measures and will understand that natural enemies keep pests in check and prevent population explosions. They will know the thresholds which might indicate pesticide use as a last resort. They will also know that when using pesticides as a last resort - how to reduce potential harm to people and non-target fauna.

BfDE and PAN in Ethiopia: These two local Ethiopian-resident NGOs are permanently based in the country. They each bring their own experiences and expertise to the proposed intervention. This Project will provide in-depth opportunity for them to learn from each other and from the Project. As a consequence they will be stronger organisations, with excellent capability to work with additional communities, alleviating poverty, supporting biodiversity. BfDE will have new capability and capacity with regard to IPM and PAN, new capability and capacity with regard to beekeeping. Both will have new understanding about which bees (other than honey bees) and other pollinators are commonly found in the project area. The Project will reach extension workers in target and neighbouring districts. Even if workers are transferred or promoted the learning will stay within Ethiopia. Extension workers work directly with farmers and give them information. Many are likely to reach positions of influence in future.

Workshops will afford opportunity to analyse gaps in government policy, and identify measure to strengthen them.

All the learning generated within the Project will be available to Ethiopian farmers, Ethiopian government and Ethiopian NGOS post-project.

NGOs receive strong government oversight in Ethiopia and are only permitted to work under certain conditions - and this includes being able to demonstrate their value and their impact towards reaching Ethiopia's national goals. This Project will raise the profile of BfDE and PAN and give them strong credibility.

Q15. Gender equality

All applicants must consider whether and how their project will contribute to reducing inequality between persons of different gender. Explain how your understanding of gender equality within the context your project, and how is it reflected in your plans.

Women are highly marginalised in rural Ethiopia, having lower educational attainment, less access to training, lower status. Women married as girls [in Amhara 65% of girls marry before 18, highest in Ethiopia] are poorer, have less influence and more likely to suffer domestic violence. Women have responsibilities for childcare, for food production, for nutrition and in beekeeping. Farming activities comprise a mix of gendered and shared roles. At Project outset we will conduct a gender analysis concerning farming, looking at gendered responsibilities for different crops and activities - e.g. who decides when and what pesticides to apply? Concerning beekeeping - who decides how income is spent? We know that when one member of a married couple attends training, the learning does not necessarily bring change, if the wife/husband is not the decision-maker concerning the topic or the wife/husband feels excluded, or does not have faith in what the other has learned. We will purposefully select 40% women to participate in the FFS, as without this proactive approach they are likely to be excluded. Where possible, we advocate a household approach and encourage project beneficiaries to share learning with their spouses and bring spouses to the FFS where practical. During follow-up fieldwork Project staff will engage with husbands and wives together. Important that skills in recognising beneficial insects on farm are held by women as well as men, as gendered roles means they visit plots at different times, so is important they share what they see. We will design training sessions which are accessible to women i.e. closer to homes, shorter, more frequent, as women find it harder to spend long periods away from homes. Data collection and evaluations will be disaggregated by gender, age and disability. Elevating women's status and increasing income impacts positively on parents' decisions concerning daughters' marriage.

Q16. Awareness and understanding

How will you raise awareness and understanding of biodiversity-poverty issues in your stakeholders, including who are your stakeholders, what approaches/formats/products will you use, how you will ensure open and free access to all data, and how will you know that the messages are understood?

Farmers: Will be empowered with sound awareness and understanding about need to manage beneficial insects and harm caused by pesticides. Will learn that pesticide use comes at a cost and brings significant long term risks and they will be able to use this understanding to inform their decision-making. Achieved through training sessions, ecosystem walks, learning to observe and recognise pollinating insects and natural enemies through Farmer Field Schools - all within their local communities. Project will produce a farmer-friendly guide to local beneficial insects using local descriptors, local names and photographs - and may not go beyond insect group level - prioritising accessibility for non-scientists.

Government extension workers: Will receive training about the harm caused by pesticides, the importance of managing beneficial insects and will have new understanding about the importance of agrobiodiversity and ecosystem functioning. Will visit the IPM trials for learning and see the results for themselves. They will have access to the annual IPM and beekeeping newsletter produced by the Project - in both hard and soft copy.

Policy makers: At regional level the Project will hold workshops in Bahir Dar with department heads, decision-makers and policy-influencers. Will provide learning on importance of beneficial insects in maintaining regulating ecosystem services in agriculture, the results of the IPM trials and Project achievements. Proceedings widely shared.

IPM trials tested through FFS so farmers will have access to learning-by-doing, no need to wait for results to be taken away by assessors for analysis and fed back. All results will be written up and shared on PAN and BfD Resource Centres on websites, amongst our international networks (PAN network reaches 600 organisations in 90 countries), in Bees for Development Journal (with readers in 128 countries) our regular Bee Bulletin (7,000 email list). Project briefings written and shared on websites.

Q17. Change expected

Detail the expected changes to both biodiversity and poverty reduction, and links between them, this work will deliver. You should identify what will change and who will benefit a) in the short-term (i.e. during the life of the project) and b) in the long-term (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.

Short-term changes.

Farmers in 8 kebele (villages), extension workers and other stakeholders will have new knowledge about regulating ecosystem services provided by honey bees, other bees, other pollinators and natural enemies. They will be able to recognise main groups, understand their roles. Will have learned and adopted IPM methods, and use pesticides more wisely with reduced risk to their own health and non-target fauna. Density of pollinating insects (e.g. sweat bees, mining bees) and natural enemies (e.g. ladybirds, lacewings) will increase. Beekeeping will become viable again. Incomes of smallholders [60% men] will increase from beekeeping income, lower expenditure on pesticides and increased yields of pollinator-dependant vegetables [tomatoes, peppers, onion seed], oil-seeds and pulses. Yields of avocado and mango [not included in IPM] may benefit from better pollination as pesticides usage falls. This essential income is needed for clothes, shelter, medicines and keeping children in school. Children of poorest families often work to supplement household income. Beekeeping is readily integrated into farms, without placing additional undue burden on women, who needs more income, but not more work.

Beneficiaries

900 FFS direct participants and 1800 indirect beneficiaries who will learn from them = 2700 farmers.

100 non-FFS farmers will receive direct beekeeping support and 200 indirect beneficiaries will learn from them = 300. Total = 1000 direct and 2000 indirect. NOTE: 100 FFS farmers will also receive beekeeping support, meaning 200 people will receive beekeeping support - not counted in total to avoid double-counting.

50 government extension agents from crop and livestock departments at zonal, woreda and kebele level will receive training and be exposed to lessons learned.

50 higher level government stakeholders (regional, from other departments, including legislative) will be exposed to lessons learned, policy familiarisation and analysis.

Long term changes.

The capacity, knowledge and practices developed will sustain after project-end and continue to underpin the development of IPM in the area. Trained farmers and those practising IPM will share their results with others and IPM adoption will sustain. This will lead to lower and wise pesticide usage, increases in biodiversity. Beekeepers will expand their apiaries, and sell more honey. Previous experience shows that increases in honey yields does not lead to price falls, as demand remains high. Ethiopia's apiculture industry has good potential to expand. Beekeeping is well placed to deliver a nature-based solution to the dual challenges of biodiversity conservation and poverty reduction. Students at Bahir Dar University will learn about agrobiodiversity and understand trade-offs between pest control and beneficial insect populations on farms.

Scale up

Further support will undoubtedly be needed to achieve impact at scale as the Project scale is moderate in relation to the task at hand. Every effort will be made to achieve buy-in from government, as this is essential to achieve scale-up. It is expected that the merits of preserving the regulating functions of agrobiodiversity will become mainstreamed within government agricultural policy - and whilst the time-scale for this is hard to predict, it is essential that projects such as this drive these changes.

Q18. Pathway to change

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

Project logic: Pesticides are currently used as the only line of defence against crop pests in irrigated vegetables and for pulses using residual moisture in Mecha and Fogera. The pesticides are harmful to honey bees, other bees & pollinators [Pesticides Properties Database 2021]. Farmers do not wish to rely only on pesticides because they:

- (i) harm their honey bees, reducing honey yields
- (ii) harm people, many report symptoms of ill-health
- (iii) are expensive.

Farmers do not say pesticides harm pollinators (except honey bees) because most do not understand pollination. Project will provide awareness, understanding and skills in insect observation. With IPM options and training, farmers are willing to reduce pesticide use - hence this Project. Outcome is adoption of IPM as an alternative, so reducing harm to people, honey bees, other bees, other pollinators, natural enemies. Four Project Outputs will achieve Outcome:





- (1) Agroecosystem education - to underpin understanding
 - (2) IPM learning through FFS - to put alternative practices in place
 - (3) Beekeeping re-established - to provide immediate, tangible income benefits
 - (4) Policy familiarisation, analysis and lesson sharing - to ensure government buy-in and longer term scale-up.
- Results will contribute to agricultural systems which are good for people and biodiversity.

Q19. Exit Strategy

How the project will reach a sustainable point and continue to deliver benefits post-funding? Will the activities require funding and support from other sources, or will they be mainstreamed in to “business as usual”? How will the required knowledge and skills remain available to sustain the benefits? How will your approach, if proven, be scaled?

Project will test and teach IPM methods so by end of Project farmers will have know-how, skills and knowledge to apply these methods by themselves. Achieved through the provision of high quality, hands-on farmer training based on the Farmer Field School methodology. Farmers may need subsequent support - e.g. to answer new questions, to cope with changes in weather patterns, or to apply IPM to different crop configurations. This Project is therefore investing in 50 government extension workers whose mandate it is to provide support to farmers, even outside Projects i.e. mainstreamed to business as usual. All Ethiopian partners are permanent organisations in Ethiopia and their mandates to support farmers and beekeepers will remain after the end of the Project. BfDE and PAN are NGOs and are accustomed to raising funds from several sources to enable them to achieve their Strategic Goals - as evidenced by their previous track records. They will raise funds to consolidate the achievements of this Project - if evaluation indicates a need. An example of capacity in this regard; BfDE managed to sustain a FCDO-funded project in 2021, even when FCDO funding was withdrawn because of UK budget cuts in April 2021. This Project is investing knowledge and skills mainly with farmers and extension workers, not external students or researchers, although we hope students from Bahir Dar University will learn from the Project and incorporate knowledge into future careers as leaders and policy-makers. The approach, if proven, will be scaled by Ethiopian government - hence the strong emphasis on high-level of government involvement at many different levels - including regional decision-makers. The policy analysis workshops will identify policy and programming opportunities to minimise negative trade-offs between pesticide use and biodiversity conservation in the long term, to support sustainable, resilient farming.

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

 [More-bees-additional-info-references-project-logic-map](#)
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Section 7 - Risk Management

Q20. 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.

Projects should also draft their initial risk register using the [Risk Assessment template](#) provided, and be prepared to submit this when requested if they are recommended for funding. Do not attach this to your application.

Risk Description	Impact	Prob.	Gross Risk	Mitigation Header	Residual Risk
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Fiduciary Risk of fund not being used for intended purposes	Major	Rare	Moderate	Avoid. This risk will be minimized by working with a long term trusted partner in Ethiopia who has always demonstrated high fiduciary standards. Bees for Development Ethiopia has excellent financial management and reporting processes in place and funds cannot be used for unintended purposes without this coming to light.	Minor
Safeguarding Risk of project staff causing harm to beneficiaries by abusing the power imbalance between benefactor / beneficiary	Major	Rare	Moderate	Avoid. This risk will be reduced through the avoidance of high risk situations, e.g. staff will not work in one-to-one, intimate settings with beneficiaries. In accordance with our organisational safeguarding policies beneficiaries will be informed that they have a right to be treated well always, and how to report concerns.	Minor
Delivery Chain Delivery model relies on building capacity not only of Bees for Development Ethiopia, but also of government extension agents in the working area. There is a risk that these agents may be relocated from time to time, with subsequent loss of local capacity.	Minor	Possible	Moderate	Accept. Even if this occurs the learning and the strengthened capacity will not be lost to Ethiopia, only transferred to a different place. The overall project outcome will still be achieved.	Minor
Risk 4 Conflict in Ethiopia. At the time of grant application submission Ethiopia is experiencing conflict. At the time of submission our current project work is unaffected, but this could change.	Severe	Possible	Severe	Prepare contingent plans. The conflict situation is hard to predict and outside of our control. At present it is localised. Project is located in and near Bahir Dar a major safe city. This project has been designed with limited international travel.	Major
Risk 5 Exchange rate changes and high inflation. The Ethiopian economy has been impacted by Covid pandemic and the current conflict in Tigray and this is causing high inflation, with local currency losing value.	Moderate	Likely	Major	Prepare contingent plans. This risk can be managed in part because the grant will be in GBP and we will transfer grant gradually – therefore we will be able to manage costs and re-work activities if necessary. The exchange rate changes will, in part, offset local inflation.	Minor
Risk 6 Loss of key staff. Our main local partner in Ethiopia comprises a small team. Should any of our staff leave the organisation then the capacity building gains of this project will be lost.	Moderate	Unlikely	Moderate	Avoid. We endeavor to maintain staff through excellent human resource management policies and practices and by maintaining a rewarding workplace experience with high work satisfaction.	Minor





Section 8 - Implementation Timetable

Q21. Provide a project implementation timetable that shows the key milestones in project activities

Provide a project implementation timetable that shows the key milestones in project activities. Complete the Word template as appropriate to describe the intended workplan for your project.

[Implementation Timetable Template](#)

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 fill/shade only the quarters in which an activity will be carried out. The workplan can span multiple pages if necessary.

 [More-Bees-R28-Darwin-Implementation-Timetable](#)
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Section 9 - Monitoring and Evaluation

Q22. 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](#)).

With support from BfD UK, in-country responsibility for M&E will lie with Bees for Development Ethiopia and the Project Manager, Getu Hailu, assisted by M&E expert Getsh Kassa. At project outset we will create a M&E plan, based on the indicators within the logical framework. The M&E plan will elaborate a series of milestones that we expect to complete by specific time points, the data that we need to collect (what we will measure and how), the frequency of collection, the approach to data analysis and person responsible for data collection. Data will be carefully curated in a tracking database for ease of reference and to allow reporting and review. The M&E plan will include a review at the end of every quarter (3 months) during which time we will examine our progress against our expected targets, in quarterly review meetings attended by representatives from all Project partners. These will be conducted via zoom or equivalent. We will consider whether the project is on track to achieve the overall objectives or not. If not we shall revisit the project plan and make adjustments and revisions as necessary. These quarterly reviews will inform the subsequent work plan for the next period. We will be mindful of the need to adapt the project design should evidence point to this necessity.

M&E is an on-going process not confined to annual surveys or end of project evaluations. Where possible we will build formative assessments into project activities, for example, asking farmers during FFS sessions to recall what they learned in previous sessions. Records of this feedback will be used to monitor progress. Training sessions will include pre- and post-assessments, followed up by interviews 6 months after training to find out how people applied what they learned. We will seek feedback from farmers and other stakeholders throughout to check that they are able to access and benefit from all the relevant project components, to check that training is pitched at the correct level and project staff are not making wrong assumptions about the appropriateness of the IPM methods in relation to farmers' realities. We will monitor that the sub-set of farmers selected for the more formal, in-depth training are passing their learning on to their fellow farmers in the Farmer Field Schools. If this is not occurring we may need to make some changes to the approach.

End of Project evaluation will critically examine whether the IPM methods are scalable and replicable - given future available level of support from government and Project partners. PAN-Ethiopia have good experience of collecting robust

data about crop yields and profit margins and BfDE will learn from PAN's expertise and bring this to the Project.

Total project budget for M&E in GBP (this may include Staff, Travel and Subsistence costs)

██████████

Percentage of total project budget set aside for M&E (%)

█

Number of days planned for M&E

60

Section 10 - Logical Framework

Q23. Logical Framework

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.


- [Stage 2 Logframe Template](#)

Please complete your full logframe in the separate Word template and upload as a PDF using the file upload below. – **please do not edit the template structure other than adding additional Outputs if needed as a logframe submitted in a different format may make your application ineligible.** Copy your Impact, Outcome and Output statements and your activities below - these should be the same as in your uploaded logframe.

Please upload your logframe as a PDF document.

 [More-Bees-R28-Darwin-St2-Logical-Framework](#)

 31/01/2022

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 pdf 110.53 KB

Impact:

Agriculture in Ethiopia delivers multiple benefits for people, for biodiversity and for the environment, with maximum synergy between sustainable development and ecosystem service provision.

Outcome:

Adoption of integrated pest management in 2 sites in Amhara, leading to restoration of beekeeping livelihoods, increased abundance of beneficial insects, and more income for smallholders.

Project Outputs

Output 1:

Smallholder farmers and government extension workers in Fogera and Mecha have a good working understanding of their local agro-ecosystem. Specifically, they will be (i) able to identify specific pollinators, natural enemies and crop pests and know their lifecycles and understand their roles in the agro-ecosystem (natural enemies and pollination) (ii) appreciate how misuse of pesticides can interrupt beneficial processes within their agro-ecosystem leading to pesticide resistance, pest replacement and resurgence and pollination deficits (iii) perceive that their agro-ecosystem is a whole system and can be nurtured to increase the sum of benefits.

Output 2:

Integrated pest management approaches adopted by smallholders in Fogera and Mecha. Specifically, farmers will adopt a range of cultural, physical and biological measures to manage crop pests. Chief amongst these will include enrichment of field margins to provide habitat for natural enemies and use of food sprays to attract natural enemies – together enhancing natural pest control services by boosting biodiversity.

Output 3:

Beekeeping enterprises established and re-established by smallholder farmers. Youth, women and both new and existing beekeepers will receive training and support to establish profitable home-based beekeeping enterprises.

Output 4:

Farmers, government extension workers and other stakeholders have good understanding about instruments and guidelines to support biodiversity-friendly agriculture. Specifically, stakeholders, including vendors of agrochemicals, will have knowledge of (i) government policies, proclamations and regulations on protecting biodiversity (ii) responsible use of agro-chemicals, toxicity of different products. (iii) lessons learned from project actions and results

Output 5:

No Response

Do you require more Output fields?

It is advised to have fewer 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, 1.3 are contributing to Output 1.

- 1.1. Experts and Development Agents in livestock and crop production (government extension workers) attend 3-days training courses in harmful impact of pesticides and the role of beneficial insects in sustainable agriculture
- 1.2. Experts and Development Agents in livestock and crop production (government extension workers) attend 3-days training courses in local agro-ecosystem, in pollination and sustainable agriculture
- 1.3. Smallholder farmers [40%F] attend training courses in understanding their local agro-ecosystem and in pollination, attend 4 half-day sessions at local Farmer Training Centres in 2022, 2023 and 2024
- 1.4. Experts and Development Agents in livestock and crop production (government extension workers) and smallholder farmers participate in agro- ecosystem walks to understand their local agro-ecosystem and the role of ecosystem services
- 1.5. Learning About Pollinator days: group of 30 pollinator observers are taught by entomologist how to observe, recognise and describe locally-found flower-feeding insects in the project areas – through fieldwork – so they can share these skills and knowledge with others.
- 1.6. Produce an easy-to-use ID guide for the most commonly found bees, other pollinators and natural enemies using local names and descriptions
- 1.7. Pollinator observers conduct flower-insect timed counts using ID guide [1.6] in IPM plots and normal plots (2km distance between) in 24/25
- 2.1 Experts and Development Agents in livestock and crop production attend training in Integrated Pest Management (IPM).
- 2.2 Smallholder farmers [40%F] attend training in IPM.
- 2.3 Establish Farmers Field Schools (FFS) for IPM field trial and learning in 8 kebele (2 woredas), design trials with range of measures
- 2.4 Conduct Integrated Pest Management trials in FFS, field workers and farmers to make weekly assessments, collect, record and analyse data
- 2.5 Experts and Development Agents in livestock and crop production (government extension workers) and smallholder farmers participate in IPM field visit in the project kebeles (within the project woredas).
- 2.6 Officials, Experts and Development Agents in livestock and crop production and smallholders attend workshops to learn of IPM field results.
- 3.1 Experts and Development Agents in livestock and crop production attend training in advanced sustainable beekeeping.
- 3.2 Smallholder farmers [80 M and 60 F] attend training in how to make hives, how to get bees and how to establish apiaries and basic beekeeping
- 3.3 Former/declining beekeepers attend training in bee colony multiplication and top-bar beekeeping
- 3.4 All beekeepers given training in how to boost forage availability for bees, how to enrich habitat and how to protect

colonies from pesticides

3.5 Small input provision procured and donated to beekeepers, based on needs assessment

3.6 All beekeepers given training in how to get the best price for their honey (in marketing, quality assurance, understanding the market)

4.1 Key stakeholder organization heads, directorates and experts attend policy familiarization workshop on CBD, SDGs, and government policies, proclamations and regulations on biodiversity conservation, poverty reduction, pesticide use, pollination services and sustainable agriculture.

4.2 Key stakeholder organization heads, directorates and experts attend policy analysis workshop on CBD, SDGs, and government policies, proclamations and regulations on biodiversity conservation, poverty reduction, pesticide use, pollination services and sustainable agriculture.

4.3 Publish and distribute information booklet about pollinators, natural enemies of crop pests and impact of pesticides on the agro-ecosystem in Amhara (hard copy and electronic means).

4.4 Publish and distribute Bi-annual IPM and beekeeping newsletters in hard copy and electronic means.

Section 11 - Budget and Funding

Q24. 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. Note that all Darwin Main should be using the over £100,000 template. Please refer to the [Finance Guidance](#) for more information.


- [Budget form for projects over £100k](#)

Please ensure you include any co-financing figures in the Budget spreadsheet to clarify the full budget required to deliver this project.

N.B.: Please state all costs by financial year (1 April to 31 March) and in GBP. The Darwin Initiative cannot agree any increase in grants once awarded.

Please upload your completed Darwin Budget Form Excel spreadsheet using the field below.

 [More-Bees-Budget-for-stage-2-application](#)

 30/01/2022

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 xlsx 79.4 KB

Q25. Financial Risk Management

Explain how you have assessed the risks and threats that may be relevant to the successful financial delivery of this project. This includes risks such as fraud, bribery or corruption, but may also include the risk of fluctuating foreign exchange, delays in procurement or recruitment and internal financial processes such as storage of financial data.

Assessed the risk of misuse of funds and fraud to be low. This is based on previous 10 years experience of transferring funds to BfDE, their clean audit record and through frequent spot checks. Their financial management protocols are robust with clear separation of duties between accountant and cashier. In this Project transfers will be made to PAN-Ethiopia, a new partner for us. We have assessed the risk and misuse of funds and fraud to be low based on due diligence check - asking about their financial management processes and receiving good reference from PAN-UK. We have assessed the risk of bribery and corruption to be low because the Project is not handing out lucrative contracts, which could attract these risks. Exchange rate fluctuations do occur and we manage this by monitoring the rate on a regular basis and converting spends in local currency back into UK£ for each report and maintaining a budget v spend report in UK£ and informing Ethiopian partners of any substantial changes due to exchange rate gains or losses. Exchange rate changes are sometimes

accompanied by high inflation which also needs to be monitored. Vehicle procurement will be managed by reputable agency, with good commendation.

Q26. Funding

Q26a. Is this a new initiative or does it build on existing work (delivered by anyone and funded through any source)?

Development of existing work

Please provide details:

Largely a new initiative, yet does follow Bees for Development Ethiopia's previous studies, community consultations and assessments in relation to the impact of pesticides on honey bees and beekeepers' incomes.

2015 Assessment on the incidence of agrochemicals on honey bees in selected districts of the Amhara region, Ethiopia, undertaken by BfDE and Amhara Regional Livestock Agency, with funding from SNV. One finding was that 70% of beekeepers had no knowledge of the role of bees as pollinators (250 people interviewed).

2018 Responding to urgent needs of sustainable beekeeping and intensive crop production with respect to use of agrochemicals: the case of Amhara. Undertaken by Bahir Dar University and BfDE with funding from USAID. One finding was that farmers do not follow guidelines concerning pesticides and use higher doses than recommended.

2021 Consultative meeting on pesticide use and IPM conducted by BfDE and PAN-Ethiopia, June 2021. 26 government, community and NGO stakeholders participated. Stakeholders noted that farmers must own the process of learning about IPM to ensure adoption and sustainability.

PAN-Ethiopia are delivering important existing work - see 26b.

Q26b. Are you aware of any current or future plans for similar work to the proposed project?

Yes

Please give details explaining similarities and differences, and explaining how your work will be additional and what attempts have been/will be made to co-operate with and learn lessons from such work for mutual benefits.

PAN Ethiopia are working on an Integrated Pest Management project with vegetable growers in Ziway, Oromia, Ethiopia. This Project is similar - the Farmer Field School approach to people-centred learning which is being used in Ziway, will be used in this Project. The Project is similar - the focus is on delivering appropriate, practical and effective ways of replacing pesticide use in part or in whole, by introducing IPM measures. This Project differs - it is driven in the first instance by an awareness amongst farmers of the harm being caused by pesticides to honey bees and the subsequent loss of beekeeping incomes - and a determination to demonstrate that beekeeping can be done alongside profitable sustainable farming methods. This Project is different - we will draw attention to the role of pollinating insects on farms, exposing farmers to the understanding that where honey bees are harmed, so too are other species of bees and pollinators. This Project takes place in a different region in Ethiopia. Recognising PAN Ethiopia's experience they are invited as a Project partner. They will benefit from learning about pollinators, and take this learning back to their sites in Ziway.

Q27. 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.

Following serious consideration we are requesting budget for the purchase of a vehicle. BfDE's current vehicle is a second hand vehicle re-deployed through the government's re-distribution of assets scheme. It needs a lot of maintenance and is no longer cost-effective to run. This budget is an addition to our Stage 1 application, hence an increase in our request. We are not requesting more than 10% capital costs. We anticipate that the capital items purchased, a vehicle and computer equipment, will remain in Ethiopia after the end of project, provided such a request is approved. The equipment will continue to be used in-country to further work on poverty-biodiversity linkages in Amhara - helping people make a living from beekeeping and to support the integrity and biodiversity of their agroecosystems. One laptop purchased by BfD will be used in UK to support our international development work in the future.

Q28. Value for Money

Please describe why you consider your application to be good value for money including justification of why the measures you will adopt will secure value for money.

BfD and partners pay due attention to maximising the impact of every pound spent. Economy: Main cost drivers are salaries and transport. Salary bench-marking exercise with other UK-supported NGOs in Ethiopia confirms our salaries are comparable. Project is delivered in an area local to the main delivery partner, so keeping transport costs under control. Effectiveness: We have analysed the problem, identified the solution and invited suitably qualified and experienced partners to bring relevant and complementary competencies to the Project. Project based on sound logic. Efficiency: This Project will efficiently convert inputs into results because we are familiar with the context, have good experience of delivering projects in this part of Ethiopia and all the partner relationships are already in place. This Project will not suffer from the problem of 'just having got started' a year in. We have already completed much of the foundation work. Cost-effective: Most of the activities within this project take place in-country, there is no large spend on international travel. Comparing total spend to results shows this work to be cost-effective as it addresses a complex problem, starts from a low base [farmers don't understand pollination], with the potential to influence government policy and to protect essential regulating ecosystem services. Equity: BfDE have a proven track record of reaching the most marginalised people, including women, people with disabilities and people who cannot read and write. This ethos of inclusion will be brought to bear in this Project. Fortunate to benefit from volunteer adviser and match-funding.

Section 12 - Safeguarding and Ethics

Q29. Safeguarding

Projects funded through the Darwin Initiative must fully protect vulnerable people all of the time, wherever they work. In order to provide assurance of this, projects are required to have appropriate safeguarding policies in place.

Please confirm the Lead Partner has the following policies in place and that these can be available on request:

Please upload the lead partner's Safeguarding Policy as a PDF on the certification page.

We have a safeguarding policy, which includes a statement of our commitment to safeguarding and a zero tolerance statement on bullying, harassment and sexual exploitation and abuse	Checked
We have attached a copy of our safeguarding policy to this application (file upload on certification page)	Checked
We keep a detailed register of safeguarding issues raised and how they were dealt with	Checked
We have clear investigation and disciplinary procedures to use when allegations and complaints are made, and have clear processes in place for when a disclosure is made	Checked
We share our safeguarding policy with downstream partners	Checked
We have a whistle-blowing policy which protects whistle blowers from reprisals and includes clear processes for dealing with concerns raised	Checked
We have a Code of Conduct for staff and volunteers that sets out clear expectations of behaviours - inside and outside the work place - and make clear what will happen in the event of non-compliance or breach of these standards	Checked

Please outline how you will implement your safeguarding policies in practice and ensure that downstream partners apply the same standards as the Lead Partner. Please highlight any key safeguarding risks, including human rights issues, their assessment and measures to mitigate and manage them.

BfD has a zero tolerance policy towards bullying, harassment and sexual exploitation and abuse. All staff sign a Code of Conduct to this effect. Our safeguarding statement is made clear via our website, which also includes a form for reporting. All know how they should report any concerns and how to contact the Safeguarding Focal Person. Bees for Development Ethiopia have their own Safeguarding Policy and in 2021 completed a training programme with the Safeguarding Resource and Support Hub in Ethiopia (organisation supporting the aid sector to strengthen their safeguarding policy and practice). In Ethiopia beneficiaries are informed at project outset, and during workshops, training sessions, about the standard of behaviour they can expect from project staff and how to report concerns. The main safeguarding risk is the power disparity between project staff in Ethiopia and project beneficiaries in Ethiopia, some of whom are extremely poor and vulnerable. We manage this power disparity through safe recruitment of project staff, taking up references and through training and briefing. Project staff are instructed to avoid risky situations e.g. a male interviewer should never enter home of female beneficiary for interview if both are alone. We have comprehensive whistle-blowing policy.

Q30. Ethics

Outline your approach to meeting the key ethical principles, as outlined in the guidance.

Project will adhere to all laws in Ethiopia. Project is not acquiring or storing genetic material from the Project site. If any insect specimens are collected for identification, this will be handled by local Bahir Dar University according to proper protocols. This is not a major intention within the project as our approach to insect surveys is observation in the field and using local descriptors for ID, not collecting. Where farmers share traditional knowledge concerning alternative pest control measures, their contributions will be treated with respect, they will not be made to feel that their local knowledge is less worthy than approaches tried within the project. This project is designed with high level of engagement from farmers and other stakeholders in Ethiopia, and learning will remain in Ethiopia. The FFS method is about educating, informing, learning-by-doing – and then empowering farmers to make their own decisions about their own farms. Their perspectives will always be given due consideration. Where photographs, case studies, beneficiary feedback and testimonials are collated, the project will seek informed consent. Farmers will be invited to provide data and interview responses voluntarily, and given full information about how such information will be used. Project design is highly ethical in that the need for the project was initiated in response to farmers' felt-needs, recognises that people and nature are part of one social-ecological system and project brings no mindset that people should be removed from their natural resources (as in protected areas).

Section 13 - FCDO Notifications

Q31. FCDO Notifications

Please state whether there are sensitivities that the Foreign Commonwealth and Development Office will need to be aware of should they want to publicise the project's success in the Darwin Initiative in any country.

No

Please indicate whether you have contacted FCDO Embassy or High Commission to discuss the project and attach details of any advice you have received from them.

Yes (no written advice)

Section 14 - Project Staff

Q32. 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.

Please provide 1-page CVs or job description, further information on who is considered core staff can be found in the [Finance Guidance](#).

Name (First name, Surname)	Role	% time on project	1 page CV or job description attached?
Janet Lowore	Project Leader	20	Checked
Getu Hailu	Project Manager	50	Checked
Tilahun Gebey	Beekeeping senior expert	30	Checked
Getsh Kassa	M&E and capacity building expert	50	Checked


Do you require more fields?


Yes


Name (First name, Surname)	Role	% time on project	1 page CV or job description attached?
Tadesse Amera	IPM Lead	20	Checked
Atalo Belay	Farmer Field School Trainer	20	Checked
Adane Tesfaye	Entomologist	20	Checked
Mike Edwards	Pollinating insects specialist	3	Checked
Stephanie Williamson	IPM Technical Adviser	3	Checked
Alexander Stuart	Agroecology Technical Adviser	3	Checked
To be recruited	IPM Farmer Field School fieldworker	100	Checked
To be recruited	IPM Farmer Field School fieldworker	100	Checked

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

Ensure the file is named clearly, consistent with the named individual and role above.

 [More-Bees-All-staff-CVs-10people-plusTBR](#)

 27/01/2022

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 pdf 865.75 KB

Have you attached all project staff CVs?

Yes

Section 15 - Project Partners

Q33. Project partners

Please list all the Project Partners (including the Lead Partner - i.e. the partner who will administer the grant and coordinate the delivery of the project), clearly setting out their roles and responsibilities in the project including the extent of their engagement so far and planned.

This section should demonstrate the capability and capacity of the Project Partners to successfully deliver the project. Please provide Letters of Support for all project partners or explain why this has not been included.

The partners listed here should correspond to the Delivery Chain Risk Map (within the Risk Register template) which you will be asked to submit if your project is recommended for funding.

Lead partner name: Bees for Development

Website address: www.beesfordevelopment.org

Details (including roles and responsibilities and capacity to engage with the project):

Bees for Development is a leading international organisation that leverages the benefits of bees and beekeeping to address global poverty and biodiversity loss and to support climate-resilient smallholder farming. The value we bring to this Project is our experience of working with beekeeper/farmers - in Ethiopia - through our partner organisation BfDE. It is our close working relationship with these beekeeper/farmers which means we have the ability to achieve impact where it is most needed. They are asking for a solution to the problem of pesticides harming bees. We are well connected in the bee world and are able to disseminate and share learning through our network, resource centre and Bees for Development Journal (reaches 128 countries). In same location as this Project we have recently delivered three projects funded by DFID/FCDO and we completed the necessary due diligence assessments as required by DFID/FCDO. [Mannion Daniels can provide reference]. We have managed grants from DFID/FCDO in excess of ██████████ and have completed all financial reporting to a high standard. The technical assessment of all project scored an A (outputs met expectation). All projects were rated highly in terms of sustainability, data analysis, value for money, learning and project management measures.

Allocated budget (proportion or value): ██████████

Represented on the Project Board Yes

Have you included a Letter of Support from this organisation? Yes

Have you provided a cover letter to address your Stage 1 feedback? Yes

Do you have partners involved in the Project?

Yes

1. Partner Name: Bees for Development Ethiopia

Website address: www.beesfordevelopment.org

Details (including roles and responsibilities and capacity to engage with the project):

Bees for Development Ethiopia is the main local partner in Ethiopia. Their mission is to promote inclusive and pro-poor beekeeping in Ethiopia that is well integrated with the environment thereby contributing to sustainable rural livelihoods. They are well respected and regarded by the beekeeper/farmers they work with and by the regional, zonal and districts government departments with whom they collaborate. BfDE have an exemplary track record with the Charities and Societies Agency (Eth govt.). They have an experienced team of staff operating out of offices in Bahir Dar, near to where this project will be located. BfDE have been the main partner with the Lead (see above) in the delivery of three significant DFID/FCDO grants and have demonstrated their capacity in terms of achieving results, project management, M&E and financial reporting. BfDE will take the lead on project management and M&E in Ethiopia and will coordinate project implementation and local partners. Recognising that bees are threatened not only by pesticides, but also also by forage and habitat loss, BfDE are investing in work to rehabilitate degraded land in 3 sites - demonstrating joined-up development and a clear understanding of local realities. With small focussed team BfDE are economical and efficient.

Allocated budget: ██████████

Represented on the Project Board Yes

Have you included a Letter of Support from this organisation? Yes

2. Partner Name: Pesticide Action Nexus Ethiopia

Website address: <https://www.pan-uk.org/vegetable-farmers-in-ethiopia/>

Details (including roles and responsibilities and capacity to engage with the project):

PAN Ethiopia has considerable practical experience of working with farmers in Ethiopia to replace Highly Hazardous Pesticides (HHPs) with safer methods of managing pests and diseases, improving net incomes and reducing human and environmental harms. PAN Ethiopia comprise a well qualified, experienced team of agronomists, development practitioners, entomologists and educators. They are experienced in IPM having achieved significant results through their IPM projects on cotton and vegetables and in using the Farmer Field School approach to empower farmers to take the lead in making their own decisions about how to protect their crops. Experienced in using practical education methods such as Ecosystem Walks, techniques developed through a previous Darwin Initiative funded project in Ethiopia. PAN Ethiopia have considerable experience of mitigating the impacts of pesticides on biodiversity - including beneficial insects - through agroecological solutions. PAN works with local government, policy makers and smallholder farmers to secure safe, resilient and ecologically robust farming in many different parts of Ethiopia. Their experience, the qualifications and expertise of their staff, their networks and influence all bring immense value to this Project. They have proven capacity of delivering projects and have been successful recipients of Darwin funding previously.

Allocated budget: ██████████

Represented on the Project Board Yes

Have you included a Letter of Support from this organisation? Yes

3. Partner Name: Bahir Dar University

Website address: <https://www.bdu.edu.et/>

Details (including roles and responsibilities and capacity to engage with the project): Bahir Dar University (BDU) is one of the largest universities in Ethiopia with 55,000 students and an excellent research and educational establishment based in the same location as this proposed project. They have agriculture, biology and apiculture research and teaching programmes. BDU has an established working relationship with Bees for Development Ethiopia - BfDE supported the development of their MSc Apiculture programme and together BDU and BfDE won a AKLDP research award (USAID) 'Responding to urgent needs of sustainable beekeeping and intensive crop production with respect to use of agrochemicals: the case of Amhara'. In this Project BDU will take the lead on teaching farmers, govt. staff and BfDE staff on how to observe pollinating insects, how to describe and group them and supporting the training sessions for stakeholders on plant-pollinator relationships. They will support baseline survey and end-of-project biodiversity assessment in the two project locations. Dr. Adane from BDU is a specialist in crop protection and has experience of IPM in neighbouring districts. He will afford excellent opportunities for linking student learning and research at BDU with the project, so building in-country capacity and helping to educate future leaders and policy-makers in Ethiopia.

Allocated budget: ██████████

Represented on the Project Board Yes

Have you included a Letter of Support from this organisation? Yes

4. Partner Name: Pesticide Action Network UK

Website address: <https://www.pan-uk.org/>

Details (including roles and responsibilities and capacity to engage with the project):

PAN UK works to tackle problems caused by hazardous pesticides and promote sustainable, resilient and equitable farming systems. Our PhD qualified staff bring decades of relevant work experience and a recognised track record in: IPM, alternatives to pesticides; agroecology; farmer participatory methodology; pesticide policy; advocacy in global forums; and project management. We have over 20 years' engagement with Ethiopian government agencies and other stakeholders and collaborate closely with PAN Ethiopia since 2005.

Our role in this project is to:

- Provide technical advice on IPM trial methodology for testing the food spray and other IPM methods at the set-up and planning stage
- Help develop curriculum and train project staff in the agroecological education component
- Support PAN Ethiopia and BfDE staff on IPM trials and other activities via technical back-stopping as needed, particularly via field visits in Y1 and Y3
- Take part in results analysis and interpretation, project M&E and impact assessment
- Support dissemination of key findings, lessons and recommendations via global policy forums in which PAN UK engages and via our website

PAN UK will be responsible for overall technical oversight of the IPM-related components, and maintaining close liaison with PAN Ethiopia and BfD.

Allocated budget:



Represented on the Project Board

Yes

Have you included a Letter of Support from this organisation?

Yes

5. Partner Name:

Edwards Ecological and Data Services Ltd

Website address:

No Response

Details (including roles and responsibilities and capacity to engage with the project):

Mike Edwards is an entomological ecologist specialising in habitat management for insects. Has extensive experience with aculeate Hymenoptera, Diptera and Orthoptera, and has studied the habitats occupied by these insects for 40 years. Edwards has carried out ecological projects in UK, Europe and Australia – and much involved in IPM in the latter. Mike was co-ordinator for the UK Biodiversity Action Plan group The Aculeate Conservation Group from 1997-2007. Has been heavily involved with habitat, land and farm management for conservation of a wide range of invertebrate groups, including the development of monitoring and management techniques. In this project Mike will provide specialist knowledge with regard to educating the project team about pollinating insects, their groupings, how to observe, recognise and describe them, their ecology and role as pollinators. He will make one visit to Ethiopia to support project team to observe flower-feeding insects and advise about approaches to monitoring changes, using accessible methods. Mike will act as a volunteer mentor. Mike has shared his expertise during the preparation of this proposal, noting that Ethiopian pollinator surveys tend to record larger insects only, suggesting that smaller bees such as the very important pollinating sweat bees are being overlooked.

Allocated budget: ██████████

Represented on the Project Board Yes

Have you included a Letter of Support from this organisation? Yes

6. Partner Name: Amhara Regional Office of Agriculture

Website address: *No Response*

Details (including roles and responsibilities and capacity to engage with the project): Representing stakeholders from government. Have mandate to support agricultural development through the delivery of wide range of extension services, information delivery, expertise, advice and policy guidance. Will participate in this project at every stage from kebele (village) to woreda (district) to zone and to region. Project delivered by NGOs in Ethiopia must be 'approved' by government and this approval elevates the project so that it falls within the realm of responsibility of relevant staff. Government staff collaborate fully and support the project to the best of their ability. In this Project the Office of Agriculture will make available their Farmer Training Centres as training venues and some land for IPM trials. Staff will assist the Project in every activity. Staff are also beneficiaries and they will gain knowledge, skills, understanding and awareness and will incorporate Project results into their normal work in the future. Their involvement and buy-in will be key to sustainability. Project budget will not pay government staff salaries nor transfer budget to government offices. Budget is available for transport and subsistence allowances as appropriate.

Allocated budget: ██████████


Represented on the Project Board Yes

Have you included a Letter of Support from this organisation? Yes


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 cover letter responding to feedback received at Stage 1 if applicable and a combined PDF of all letters of support.

 [BeesforDevt-Cover-letter-More-Bees](#)


 31/01/2022


 14:26:50

 pdf 337.87 KB

 [More-Bees-Support-letters-from-all-partners](#)

 28/01/2022

 10:19:01

 pdf 2.97 MB

Section 16 - Lead Partner Capability and Capacity

Q34. Lead Partner Capability and Capacity

Has your organisation been awarded a Darwin Initiative funding before (for the purposes of this question, being a partner does not count)?

Yes

If yes, please provide details of the most recent awards (up to 6 examples).

Reference No	Project Leader	Title
19-015	Dr. Nicola Bradbear	Equitable access to pasture use for beekeepers in Kyrgyz Republic
No Response	No Response	No Response
No Response	No Response	No Response
No Response	No Response	No Response
No Response	No Response	No Response
No Response	No Response	No Response

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

If yes, please upload these on the certification page. Note that this is not required from Government Agencies.

Yes

Section 17 - Certification

Q35. Certification

On behalf of the

Trustees

of

Bees for Development

I apply for a grant of







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 project key project personnel, letters of support, budget, logframe, safeguarding policy and project implementation timetable (uploaded at appropriate points in application)
- Our last two sets of signed audited/independently verified accounts and annual report are also enclosed.

Checked





Name	Janet Lowore
Position in the organisation	Programme Manager
Signature (please upload e-signature)	 Janet Signature  25/01/2022  16:51:38  png 193.41 KB
Date	26 January 2022

Please attach the requested signed audited/independently examined accounts.

 [Bees for Development Trust Account 2018-2019](#)
 30/01/2022
 17:05:13
 pdf 378.57 KB

 [Bees for Development Trust Accounts 2019-20](#)
 25/01/2022
 16:52:26
 pdf 2.57 MB

Please upload the Lead Partner's Safeguarding Policy as a PDF

 [Bees for Development Safeguarding Policy](#)
 30/01/2022
 17:06:39
 pdf 1.93 MB

Section 18 - Submission Checklist

Checklist for submission

	Check
I have read the Guidance, including the "Darwin Initiative Guidance", "Monitoring Evaluation and Learning Guidance", "Risk Guidance" and "Financial Guidance".	Checked
I have read, and can meet, the current Terms and Conditions for this fund.	Checked
I have provided actual start and end dates for the project.	Checked

I have provided my budget based on UK government financial years i.e. 1 April – 31 March and in GBP.	Checked
I have checked that our budget is complete, correctly adds up and I have included the correct final total at the start of the application.	Checked
The application been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).	Checked
I have included a 1 page CV or job description for all the Project Staff identified at Question 32, including the Project Leader, or provided an explanation of why not.	Checked
I have included a letter of support from the Lead Partner and partner(s) identified at Question 33, or an explanation of why not.	Checked
I have included a cover letter from the Lead Partner, outlining how any feedback received at Stage 1 has been addressed where relevant.	Checked
I have included a copy of the Lead Partner’s safeguarding policy, which covers the criteria listed in Question 29.	Checked
I have been in contact with the FCDO in the project country/ies and have included any evidence of this. If not, I have provided an explanation of why not.	Checked
I have included a signed copy of the last 2 annual report and accounts for the Lead Partner, or provided an explanation if not.	Checked
I have checked the Darwin website immediately prior to submission to ensure there are no late updates.	Checked
I have read and understood the Privacy Notice on the Darwin Initiative website.	Checked

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 [Forms and Guidance Portal](#).

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).