Applicant: **Memmott, Jane**
Organisation: **University of Bristol, School of Biological Sciences**
Funding Sought: **£2,680,628.00**

DIR31EX\1225

Upscaling pollination to enhance biodiversity and human welfare in Nepal

Pollinator declines in the Himalayan region are leading to negative impacts on people's livelihoods and health as the yields of nutritious, high-value crops decline. We have proved that these trends can be reversed at a local-scale, if farmers, researchers and policymakers work together. Scaling up in extent and ambition, we will deliver a national-level regime-shift in pollinator awareness, farming and beekeeping practices, research capacity, and conservation policy in Nepal leading to healthier people, economies and ecosystems across the Himalayan region.

PRIMARY APPLICANT DETAILS

Title	Prof
Name	Jane
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Organisation	University of Bristol
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DIR31EX\1225

Upscaling pollination to enhance biodiversity and human welfare in Nepal

Section 1 - Contact Details

PRIMARY APPLICANT DETAILS

Title	Prof
Name	Jane
Surname	Memmott
Organisation	University of Bristol
Tel (Work)	[redacted]
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GMS ORGANISATION

Type	**Organisation**
Name	University of Bristol, School of Biological Sciences
Phone	[redacted]
Email (Work)	[redacted]
Address	[redacted]

Section 2 - Title, Ecosystems, Approaches & Summary

Q3. Project title

Upscaling pollination to enhance biodiversity and human welfare in Nepal

Please upload a cover letter as a PDF document.

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

No

Q5. 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

Temperate-boreal forests & woodlands

Biome 2

Polar-alpine

Biome 3

Intensive land-use systems

Conservation Action 1

Livelihood, Economic & Moral Incentives

Conservation Action 2

Awareness Raising

Conservation Action 3

Legal & Policy Frameworks

Threat 1

Agriculture & aquaculture (incl. plantations)

Threat 2

Pollution (domestic, commercial, agricultural)

Threat 3

Biological resource use (hunting, gathering, logging, fishing)

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.

Pollinator declines in the Himalayan region are leading to negative impacts on people's livelihoods and health as the yields of nutritious, high-value crops decline. We have proved that these trends can be reversed at a local-scale, if farmers, researchers and policymakers work together. Scaling up in extent and ambition, we will deliver

a national-level regime-shift in pollinator awareness, farming and beekeeping practices, research capacity, and conservation policy in Nepal leading to healthier people, economies and ecosystems across the Himalayan region.

Section 3 - Title, Dates & Budget Summary

Q7. Country(ies)

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

Country 1	Nepal	**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. 2 years, 3 months):**
01 April 2025	31 March 2029	4 years

Q9. Budget summary

Darwin Initiative Funding Request	2025/26	2026/27	2027/28	2028/29	2029/30	Total request
(1 Apr - 31 Mar) £	£690,208.00	£718,326.00	£713,844.00	£558,250.00	£0.00	£ 2,680,628.00

Q10. Do you have 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 deliver 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 your proposed project or a similar project?

⦿ No

Section 4 - Problem statement

Q13. 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 multi-dimensional poverty.

Pollination is a key link between biodiversity and human welfare as it supports the production of 75% of the world's crop species, including many economically and nutritionally important fruits, vegetables, and seeds (Klein et al. 2007). Smallholder farmers in the developing world are disproportionately reliant on insect-pollinated crops for their livelihoods (Timberlake et al. 2022) and for key dietary micronutrients like vitamin A and folate (Smith et al. 2015). However, agricultural intensification, habitat loss and climate change are driving declines in pollinators worldwide which are predicted to degrade human health and livelihoods (Potts et al. 2016).

One quarter of the global population currently suffer from the 'hidden hunger' of micronutrient deficiency, and ongoing pollinator declines will exacerbate this crisis (Smith et al. 2015). Pollinator declines also result in substantial economic losses, increasing rates of poverty worldwide (Murphy et al. 2022). These pressures will be felt most acutely by millions of smallholder farming families in low-income countries, where rates of poverty and malnutrition, reliance on pollinator-dependent crops, and risks of future pollinator declines are highest (Millard et al. 2023).

Pollinators are known to be declining in Nepal and the wider Himalayan region (Partap et al. 2012; Kortsch et al. 2024), threatening both its people and its unique ecosystems. Nepal has a diverse pollinator fauna including one of the richest bumblebee assemblages in the world (Williams et al. 2010) and four out of seven honeybee (Apis spp.) species (Devkota 2020). Losing pollinators is predicted to cause the loss of 26,000 years of healthy life each year in Nepal as a result of malnutrition-related illnesses, as well as c.30% of farming income (Smith et al. 2015; 2022). It is clear that if pollinator declines continue, levels of poverty and malnutrition in Nepal will worsen, further exacerbating the current pressures on natural resources and biodiversity.

Fortunately, we have shown through a previous project that all of these trends can be reversed at a local-scale when farmers, researchers and policymakers work together. At our study site in Nepal, we showed that when farmers understand the importance of pollinators and learn their ecological needs, they take actions to promote them on their land. This led to increased pollinator abundance on their farms, higher crop yields, and substantially higher household income. Building on these successes, we worked with the provincial government in our study region to co-develop the Karnali Pollinator Strategy. This wrote pollinators into policy for the first time in Nepal and embedded pollination management into agricultural practice.

These local successes demonstrate the potential for win-win solutions to pollinator conservation and human welfare. Scaling up in both extent and ambition, we want to take these successes to a national-level and deliver a full regime-shift in pollinator awareness, farming practices, and conservation policy across Nepal and the wider Himalayan region. Using a combination of tried-and-tested approaches, bold new initiatives and a diverse team of researchers, conservationists, policymakers and development NGOs, we will deliver a National Pollinator Strategy for Nepal, with long-term benefits for people and pollinators.

Section 5 - Darwin Objectives and Conventions

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)
- ☑ International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)
- ☑ 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 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.

NATIONAL LEVEL: Nepal has multiple policy acts and strategies which specifically promote biodiversity-friendly farming (and/or organic farming), demonstrating their commitment to sustainable agroecological initiatives. For example, Nepal's Department of Agriculture (DoA) promotes sustainable biodiversity-friendly farming practices in its Agriculture Development Strategy (Government of Nepal 2015) and Agrobiodiversity Policy (2014) and works closely with project partners LI-BIRD in achieving this. A key priority in Nepal's National Biodiversity Strategy and Action Plan (NBSAP 2014) is the expansion of organic agriculture and Integrated-Pest-Management to meet Aichi Targets 7 (areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity) and 14 (ecosystems that provide essential services and contribute to health, livelihoods and well-being, are restored and safeguarded). Nepal also has a 'Bee Promotion Strategy' aimed at promoting beekeeping across the country.
However, despite their obvious alignment with these strategies, pollinators and pollination are not specifically mentioned in any of the acts or policies. Without specific recognition, and a coordinated strategy for conserving and managing pollinators, their enormous potential to contribute to sustainable agriculture in Nepal will not be realised. Moreover, there is a valuable opportunity to ensure that beekeeping initiatives which deliver livelihood benefits are also harnessed for delivering crop pollination services. Our project partners in the Department of Agriculture (DoA) recognise these policy gaps and are committed to co-developing a National Pollinator Strategy for Nepal through this project.
As well as contributing to Nepal's biodiversity and agriculture strategies, the National Pollinator Strategy will cut across various other important sectors, also contributing to Nepal's Multi-Sector Nutrition Plan (MSNP), Nepal's Climate Adaptation Plan (Government of Nepal 2018) and Nepal's 16th Periodic Development Plan which aims to achieve sustainable and inclusive economic growth.

INTERNATIONAL LEVEL:
The International Pollinator Initiative was established under the framework of the Convention on Biological Diversity (CBD; Article 14/6) to promote the conservation and sustainable use of pollinators. Through this framework (and supported by the UN's Food & Agriculture Organisation; FAO), a number of countries across the world have developed National Pollinator Strategies, including the UK, US and Brazil. However numerous gaps remain, especially in low-income regions.
A National Pollinator Strategy in Nepal (one of the outputs of this project) will be the first of its kind in South Asia and would pave the way for broader regional initiatives which build upon its successes. Furthermore, our project will establish a regional Himalayan Pollination Network to share knowledge, experiences and policy ideas with neighbouring South Asian countries to achieve broader regional change. We will work alongside contacts in the FAO's International Pollinator Initiative to ensure that our strategy aligns with global initiatives, as defined by the CBD.
Through sustainably increasing food and nutrition security and raising farming incomes, our project directly contributes to the following Sustainable Development Goals: Zero Hunger (SDG 2), No Poverty (SDG1), Good Health and Well-being (SDG 3), Responsible Consumption and Production (SDG 12), Climate Action (SDG 13) and Life on Land (SDG 15).

Section 6 - Evidence for Scaling

Q15. Evidence for Scaling

Darwin Initiative Extra projects should utilise and build on evidence from past Biodiversity Challenge Funds grants to demonstrate why the approach will deliver. Please provide evidence on how your proposed project will do this, including specific reference to the relevant past projects.

We will build upon the trusted partnerships, policy momentum and proven success of our previous Darwin Initiative project (ref: 29-001) which worked at a local level to build pollinator awareness, test stewardship practices and develop a provincial pollination strategy. Previous project successes will be scaled up in both extent and ambition as follows:

PREVIOUSLY: Pollinator Awareness Classes in one district attended by >16,000 participants (65% women), leading to widespread adoption of pollinator stewardship practices and a 13% increase in farming income.
NOW: Expand to 12 districts (covering all agroecological zones), embed into schools, and reach >70,000 people (see attached map)

PREVIOUSLY: Farmer Field School (FFS) sessions in one district resulting in increased pollinator abundance and farming income for participating farmers.
NOW: Expand classes to 12 new districts reaching 5,000 farmers and integrate the FFS classes into government extension work.

PREVIOUSLY: Co-developed a Pollinator Strategy for Karnali Province which was implemented by the provincial government.
NOW: Co-develop a National Pollinator Strategy for Nepal; with its impact broadened through a wider Himalayan Pollination Network.

In addition, we roll-out four new initiatives: 1) a Sustainable Beekeeping Enterprise, 2) an urban pollinator initiative; 3) a Pollination Innovation Centre; 4) a Himalayan Pollination Network.

Section 7 - Method, Change Expected, GESI & Exit Strategy

Q16. 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 evidence and lessons learnt from past and present similar activities and projects in the design of this project.**
- **the specific approach you are using, supported by evidence that it will be effective, and justifying why you expect it will be successful in this context.**
- **how you will undertake the work (activities, materials and methods).**
- **what will be the main activities and where will these take place.**
- **how will you manage the work (governance, roles and responsibilities, project management tools, risks etc.).**

We have learnt five important lessons through our two previous projects in Nepal:

1) Pollinator awareness is low in Nepal, but when farmers understand the importance of pollinators, they take actions to conserve them on their farms.
2) Pollination management rapidly translates into measurable benefits for biodiversity, crop yields and farming income.

3) The capacity of researchers and extension workers to develop and disseminate pollination management solutions is limited in Nepal, but can be easily improved.
4) Despite strong political buy-in, there is no coordinated strategy to conserve and manage pollinators at the national level.
5) Researchers, practitioners and policy-makers in other Himalayan countries face many of the same challenges, but are not currently working together to solve them.

Building upon these lessons, we will deliver a national-level regime shift in pollinator awareness, management, research and conservation policy in Nepal via the following six outputs:

OUTPUT 1: National Pollinator Awareness and Education Campaign to raise the public profile of pollinators in Nepal leading to increased understanding, engagement, and conservation action.
Methods: We will deliver a national-level regime shift in pollinator awareness and understanding across all sectors of society in Nepal. Through 48 pollination workshops in 12 districts of Nepal, we will train 1,200 stakeholders and select 120 of these as pollination outreach facilitators. These facilitators will then run pollinator awareness classes for 48,000 farmers. Additionally, 360 teachers will receive pollination training and integrate this material into their courses reaching 24,000 students. A mass media campaign will target 48 radio/TV stations and social media platforms, reaching at least 1.5 million people across the country. To promote pollinator engagement in cities, we will also create 9 pollinator-friendly urban green spaces.

OUTPUT 2: Farmer Engagement Program to co-design locally-relevant agroecological interventions to enhance biodiversity and crop yields on smallholder farms
Methods: We will recruit 108 lead farmers from 12 districts and conduct seven-day “Training of Trainers” (ToT) courses on agroecological farming, pollinator management, and teaching methods. 72 of these lead farmers will be selected to establish demonstration plots on their land and lead Farmer Field School (FFS) sessions every month benefiting 5,400 farmers over three years. We will conduct baseline and annual follow-up surveys with 20% of the FFS participants to assess the adoption of agroecological farming, pollinator conservation practices, and livelihood outcomes.

OUTPUT 3: Sustainable Beekeeping initiative to support, connect and upscale beekeeping activities across Nepal leading to increased income and economic opportunities for marginalised farmers, women and youths
Methods: Beekeeper training and business management support will be provided to 450 marginalized women and youth farmers in the 12 project districts, increasing their household income and food security through honey production and enhanced crop pollination. We will support the establishment of new beekeeping enterprises in collaboration with local government partners and establish a network of beekeepers across the country to share knowledge and skills. We will co-develop sustainable wild honey harvesting guidelines and demonstrate the potential for beekeeping to provide rapid income and nutrition for communities affected by natural disasters and climatic hazards. Finally, in collaboration with local government, we will establish a Native Bee Resource Centre providing a hub of information on sustainable beekeeping practices, including stingless bees.

OUTPUT 4: Strengthening Pollination Research in Nepal through capacity-building, international partnerships, and the establishment of a Pollination Research Hub and centre of excellence
Methods: We will establish the Pollination Innovation Centre at the Agriculture and Forestry University of Nepal (AFU) serving as the nation's central hub for pollination research, attracting international collaboration and building local research capacity. To initiate this, we will establish a National Reference Collection of pollinators and a research base, complete with trained para-taxonomists, field kit, and a network of experimental and field sites. We will provide Pollination Scholarships to eight outstanding students (2/year) to undertake a four-month research placement in an international pollination research group, this serving as a ‘pathway-to-PhD’ for under-represented Nepalese students. A new pollination ecology module will be developed and integrated into the undergraduate curriculum. Finally, we will establish an international collaboration fund enabling AFU staff to build new international links.

OUTPUT 5: National Pollinator Strategy for Nepal to improve legislative protection and build pollination management capacity into all tiers of government
Methods: We will establish a national-level Technical Working Group comprising pollination experts, beekeeper groups, lead farmers and private-sector stakeholders to co-develop the strategy with our partners from the Nepal Department of Agriculture (DoA). We will collaborate with government agricultural training centres to train 450 extension workers in pollination management and develop a pollination curriculum and digital online certification course to be integrated into their regular training programmes. The project will build the capacity of a broad network of partners including the National Farmer Group Federation (NFGF), Federation of Community Forest Users Nepal (FECOFUN) and Federation of Nepalese Beekeepers (FNBK).

OUTPUT 6: Himalayan Pollinator Network for sharing knowledge, fostering collaboration and building a regional network of pollination expertise and action
Methods: We will establish a regional network of pollination experts and like-minded institutions to leverage knowledge, partnership and resources at national, regional and global levels. The project will forge strong partnerships with the International Centre for Integrated Mountain Development (ICIMOD), Asian Apiculture Initiative (AAA), and Himalayan Agroecology Initiative (HAI) and organize international knowledge sharing workshops and field visits between Nepal, Bhutan and India. Building on these knowledge sharing events, we will publish a team-authored open-access paper on pollinator conservation status in the Himalayan region.

PROJECT & DATA MANAGEMENT:
Project Leader Jane Memmott is responsible for overall project management, M&E, data management, and reporting. The project was co-designed by all partners, with strong input from stakeholders. Consequently, there is autonomy in the implementation of each project output. HERDi will lead Outputs 1&2; LI-BIRD will lead outputs 3,5&6; AFU will lead output 4. All project data will be stored on the University of Bristol's Research Data Storage Facility and anonymised data (following GDPR) made publicly available through open-access publications.

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 organisational or individual levels? Please provide details of what form this will take, who will benefit (noting GESI considerations), and the post-project value to the country.

Capability and capacity-building is embedded into each project output and will take place at four levels, as outlined below. Wherever possible, we will focus our efforts on marginalised groups including low-income rural populations, women (aiming for >50% inclusion in all activities) and young people.

Individual level: Our project will deliver capacity building courses in pollination ecology, management and research to 1,200 individuals from farming and community conservation groups, 360 school teachers and 450 agricultural extension workers across the country, equipping them to train and advise others. Our team of 30 core field staff will receive extensive training and ongoing support in agroecological management, data collection, teaching methods and monitoring and evaluation techniques, substantially enhancing their career prospects and network of contacts. The Farmer Field School (FFS) sessions delivered to 5,400 farmers will build farmer capacity in agroecological management and business management, as demonstrated in our previous Darwin project where FFS participants reported greatly enhanced farming incomes and new livelihood sources. Equally, the beekeeping enterprise training for 450 women and young people will empower them by providing new economic opportunities. Finally, in the research strengthening output (4) we will provide eight outstanding students with a transformative opportunity to build new skills, contacts and a pathway-to-PhD through their international research placement, as well as enabling six Nepalese researchers to attend international conferences.

Institutional level: Pollination research, training and management capacity will be embedded into all partner

organisations and stakeholder institutions. Nepal's Agriculture and Forestry University (AFU) will benefit from a new Pollination Innovation Centre with a National Pollinator Reference Collection, state-of-the-art pollinator survey equipment, a team of trained para-taxonomists and four cohorts of students with new international links. This new research hub and centre of excellence will greatly enhance AFU's institutional capacity and attract international collaboration, increasing its potential to leverage further funding. Our project will also provide support to local governments, agricultural research stations, beekeeping groups and schools, helping them to integrate and implement agroecological policies and curriculum content into their ongoing activities.
National level: A central goal of the National Pollinator Strategy for Nepal is to embed capability and capacity in pollination and agroecological policy into federal government departments, as well as education and extension programs. Project partners LI-BIRD work closely with federal stakeholders including the Department of Agriculture (DoA) and already support them in developing and implementing strategies such as the National Agrobiodiversity Policy. These established relationships and expertise will be used to springboard a nation-wide program of capacity-building by integrating pollination management topics directly into the national research, education and agricultural extension programs.

Regional level: Scaling up beyond Nepal, our project will work closely with partners and stakeholders from the broader Himalayan region (including the International Centre for Integrated Mountain Development; ICIMOD) to develop a strong network of pollination expertise. The central goal of this network will be to share knowledge, ideas and resources through regional workshops, cross-country exchange visits and communication networks, thus spreading capacity across the region.

Q18. Gender Equality and Social Inclusion (GESI)

All applicants must consider whether and how their project will contribute to promoting equality between persons of different gender and social characteristics. Please include reference to the GESI context in which your project seeks to work. Explain your understanding of how individuals may be disadvantaged or excluded from equal participation within the context of your project, and how you seek to address this. You should consider how your project will proactively contribute to ensuring individuals achieve equitable outcomes and how you will ensure meaningful participation for all those engaged.

Nepal has high gender inequality index, with low rates of female education and few women in positions of power (UNDP 2020). In rural areas, widespread out-migration of men in search of labour has left many rural households headed by women and shouldering the burden of much of the agricultural labour. Women are therefore more reliant on the income from agriculture and beekeeping, as well as the micronutrients from pollinator-dependent fruits and vegetables. Disproportionately at risk, women have a key stake in this project. However, women face substantial challenges in obtaining, articulating, and acting upon agricultural knowledge, which both disadvantages them and their families and threatens the success of sustainable development initiatives.

We will address this power and knowledge imbalance by ensuring female farmers and women's groups are over-represented in our awareness program and Farmer Field School sessions. In our previous project, >65% of project recipients were women and we will aim for similar numbers in this Darwin Extra project. Most of the demonstration plots (and FFS sessions) will be run by women lead farmers, providing employment and training, and empowering them as local role-models (highly successful in our previous project). Additionally, our beekeeping enterprise training is targeted specifically at women and marginalised youths, and the Pollination Research Scholarships will be allocated to at least 50% women. Our project is led overall by a woman, and we employ 50% female project staff.

Our main implementation partners, HERD and LI-BIRD, have robust GESI policies and have worked on gender issues across Nepal so have an in-depth understanding of the complex intersectional inequalities in Nepal. By specifically targeting marginalised groups in our activities (including isolated rural populations, women, and young people) we will ensure that project resources, and the benefits derived from them, are distributed fairly and inclusively, helping to address societal inequalities.

Q19. Change expected

Detail the expected changes and benefits to both biodiversity and multi-dimensional 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).

SHORT TERM CHANGES:
1) 48,000 farmers (>60% women) across 12 districts benefit from an improved understanding of the value of pollinators, thereby increasing conservation buy-in and reducing environmentally harmful practices including excessive pesticide application, habitat clearance and overgrazing. The corresponding increase in pollinator abundance leads to improved crop yields with benefits for household nutrition and income (proved as effective in our previous project).

2) Uptake of the Pollinator Stewardship Scheme by 5,000 Farmer Field School participants (>60% women), leading to a 15% increase in the abundance and diversity of wild plants and pollinating insects, a 15% increase in the yield of pollinator-dependent crops and a 12% increase in farming income (changes demonstrated in previous project).

3) 450 extension workers and district agriculture officers (>30% women) from government and non-government institutions will gain knowledge, be allocated resources and build capacity, thus enabling them to train and advise others and monitor pollinator population trends across the country.

4) 120 schools integrate pollinator ecology and conservation into their school courses by the project end, directly benefitting >24,000 school children and indirectly benefiting their families (who will be told about the training by their children, grandchildren, etc.).

5) 450 rural women and marginalised youths receive training in sustainable beekeeping practices and business literacy, enabling them to establish new enterprises, thereby increasing and diversifying their household income.

6) Nine pollinator-friendly urban green spaces established across major Nepalese cities leading to 15% increases in pollinator abundance and providing inspiration and access to nature for biodiversity-deprived urban populations.

7) Development of a National Pollinator Strategy and three local-level pollinator conservation strategies will lead to transformative legislative protection for pollinators and thereby enhance pollination services and ecosystem health.

8) Establishment of the Pollination Innovation Centre, National Pollinator Reference Collection and Pollination Research Scholarships will attract international collaboration, benefiting >300 local students and researchers as well as creating transformative career opportunities for eight outstanding students and increasing pollination research outputs from Nepal by 20%.

9) Establishment of the Himalayan Pollinator Initiative connects researchers, practitioners and policy-makers across the region leading to new collaborations and the spread of innovative new ideas, practices, and policies, with ongoing benefits.

LONG-TERM CHANGES:
1) Following the mass-media campaign and integration of pollination materials into school and agricultural extension curriculums, knowledge and appreciation of pollinators continues to spread across Nepal resulting in the uptake of pollination management practices by up to 500,000 farming households. As a result, the yield and quality of economically and nutritionally important crops continues to increase across the country, resulting in greater household income and increased food and nutrition security for hundreds of thousands of smallholder

families.

2) New policies and management practices (from the National Pollinator Strategy) increase the legislative protection for biodiversity and expand the area of biodiversity-friendly farming in Nepal. This will lead to increased pollinator biodiversity and more resilient native habitats and plant communities across the unique and highly-threatened Himalayan ecoregions.

3) With the implementation of more sustainable, biodiversity-friendly farming practices, agriculture becomes more climate-resilient, resulting in fewer yield fluctuations and crop failures.

4) New sustainable beekeeping enterprises serve as a flagship economic success, stimulating further investment and scaling-up by the private beekeeping sector.

5) The skills, resources and capacity developed by the project are used to train and advise thousands of students, researchers and agricultural/conservation practitioners across the country.

6) The Pollination Innovation Centre is used by hundreds of researchers and students across Nepal and attracts new international collaborations and researcher partnerships resulting in an expansion of Nepal's research outputs and leveraging further funding for pollination and sustainable agriculture beyond the project end.

7) Nepal's National Pollinator Strategy serves as a flagship case-study for South Asia, stimulating new policy and development initiatives and potentially inspiring the development of other National Pollinator Strategies across the region.

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.

When farmers are made aware of the importance of pollinators, and equipped with evidence-based management guidance, they take actions to promote pollinators on their farms. These actions lead to rapid measurable increases in farmland biodiversity, crop yields and household income.

Our theory of change focuses on supporting this crucial transformation pathway from:
Awareness & education > Behaviour change > Improved biodiversity & human welfare

Project outputs 1-3 feed directly into this theory of change pathway as follows:
A nation-wide pollinator awareness and education campaign (Output 1) will raise the public profile of pollinators amongst farmers, school children and the general public leading to increased engagement and conservation action. This will be supported by a more in-depth farmer engagement program (Output 2) which will work with thousands of farmers across the country to co-create pollination stewardship practices to enhance pollination services. Pollination services will be further enhanced through the promotion of sustainable beekeeping enterprises (Output 3). All of these outputs will lead to direct benefits for biodiversity and human welfare through increased farmland biodiversity, crop yields, and beekeeping income.

This pathway will then be scaled-up and institutionalised through widespread capacity-building and the development and implementation of enabling policy strategies, as follows:
Research capacity will be strengthened (Output 4) to ensure the ongoing generation of evidence to underpin pollinator conservation and management. The development of a National Pollinator Strategy (Output 5) will integrate pollinator conservation and management firmly into all tiers of government and society by building the capacity of agricultural extension workers, integrating pollination content into education programs, and co-creating 'policies for pollinators' with partners in government. Spreading this knowledge and momentum beyond

Nepal through a Himalayan Pollinator Network (Output 6), our project will lead to healthier communities, economies and ecosystems throughout the Himalayan region.

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?

Long-term sustainability of project activities will be achieved through partnership and mainstreaming:

PARTNERSHIP: All project activities are co-designed and co-driven by partners in Nepal. Project partners HERDi and LI-BIRD have already integrated topics from the previous Darwin project into their wider portfolio of projects and will continue to leverage funding in this field. Agriculture and Forestry University (AFU) will host the Pollination Innovation Centre, continuing to maintain and expand it after the project end (see letter of support). Our partners in the federal and provincial ministries will lead the long-term implementation of the National Pollinator Strategy (see letters of support).

MAINSTREAMING: We will embed pollinator conservation and management into mainstream farming practices, policy and society in Nepal through a national awareness campaign and the incorporation of pollination management into training curriculums. Finally, a National Pollinator Strategy will embed our recommendations into government programs and policy.

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?

LANDSCAPE: Our methods (e.g. Farmer Field Schools & public awareness campaigns) and information resources (e.g., videos & training manuals) are applicable across the whole Himalayan region. They will be integrated into training packages that can be used by NGOs, schools and training centres throughout the region.

RELICATION: Our approaches could also be replicated in other parts of the world with similar smallholder farming systems (e.g. sub-Saharan Africa).

SYSTEM CHANGE: Through the National Pollinator Strategy, our approaches and project activities will be integrated into government programs and legislation, ensuring long-term impacts beyond our project. We will also deliver a transformation in political and societal awareness of pollinators, leading to a shift in values and priorities.

CAPACITATION: The establishment of a National Pollination Innovation Centre and the integration of pollination expertise into a wide range of institutions will create the capacity and momentum to sustain and scale-up activities beyond the project end.

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

Reference list and Nepal map
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Section 8 - Risk Management

Q22. Risk Management

Please outline the 7 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, two Safeguarding, and one Delivery Chain Risk.

Risk Description	Impact	Prob.	Gross Risk	Mitigation	Residual Risk
Fiduciary (financial): funds not used for intended purposes or not accounted for (fraud, corruption, mishandling or misappropriated). Due to weak governance and corruption within Nepal, there is a small risk of funds being: 1) misused (e.g., paying for bribes and non-project activities), 2) used inefficiently, or 3) not comprehensively accounted for, resulting in reduced value for money and reputational damage to the project partners and DI.	Severe	Unlikely	Major	We are working with partners who are well known to us; and have already completed the University of Bristol due-diligence process before jointly implementing the Darwin pollination project. They have robust financial risk management strategies including anti-corruption policies, regular internal & external audits, procurement policies & staff codes-of-conduct	Minor
Safeguarding: risk of sexual exploitation abuse and harassment (SEAH), or unintended harm to beneficiaries, the public, implementing partners, and staff. Our target communities are vulnerable, thus there is a risk of local project staff or stakeholders being mistreated (e.g., verbally, physically, or sexually abused), exploited (e.g., under-paid) or harmed (e.g., physical injury). The impact would be an infringement of human rights, loss of community buy-in and reputational damage.	Severe	Unlikely	Major	All project partners have comprehensive safeguarding policies and require staff to sign a safeguarding code-of-conduct. Project staff will attend a safeguarding session as part of their recruitment and training; the consequences of any misconduct will be clear and they will learn how to recognise & respond to misconduct by others.	Minor

Safeguarding: risks to health, safety and security (HSS) of beneficiaries, the public. Implementing partners, and staff. Nepal's geographic location makes it vulnerable to natural disasters; most notably earthquakes, flooding and landslides. This has the potential to cause severe harm or disruption to project staff through injuries or the breaking of transport and communication links. This in turn may have liability implications for the project partners.	Major	Rare	Moderate	Risks will be mitigated through comprehensive risk assessment and health and safety protocol for all project staff, following Bristol's stringent guidelines. Travel during periods of heavy rain will be avoided, project offices/accommodation will have high earthquake security ratings and project staff will be trained in first-aid and emergency response.	Minor
Delivery Chain: the overall risk associated with your delivery model. Due to low levels of education, geographic isolation and traditional views held by many farmers and other stakeholders in Jumla, there is a risk of limited participation by farmers in project activities. This would reduce our project outcomes, particularly the uptake of the Pollinator Stewardship Scheme & health/livelihood improvements.	Moderate	Possible	Major	Our project partners work closely with farmers and other stakeholders across the country to build trust and partnership. Our team is well-known and respected, most staff are from the local community and farmers are receptive to project activities.	Minor

Risk 5					
[Contextual] Permissions are required from the Department of Forests and Soil Conservation for conducting fieldwork such as insect/plant collection and from the Provincial Government for any project activities. There is a risk that these permissions would not be given, resulting in the inability to proceed with the project.	Major	Rare	Moderate	Close connections have already been formed with relevant authorities in Nepal and our project partners work closely alongside these stakeholders. Our ongoing project (with higher risks than this one) secured all permissions and we will take all steps necessary to meet their requirements and secure permissions in a timely manner.	Minor
Risk 6					
[Delivery chain] Our delivery chain involves the transfer of funds to three primary project partners in Nepal who will work together to implement all field activities. There is a small risk of conflict between project partners over the distribution of funds and allocation of responsibility, resulting in disrupted activities.	Moderate	Unlikely	Moderate	Our team has discussed the specific role of each project partner and specified this in a 'Roles & Responsibilities' and 'team structure' document. This was shared amongst the entire team and agreed upon; ongoing communication/evaluation will be maintained. Primary budget allocation is limited to 3 partners to avoid duplication.	Minor
Risk 7					
[Delivery chain] There is always a risk that some staff members will leave their roles during the course of the project, either for personal reasons of because they are offered another job. This could temporarily disrupt project activities & require the delivery of additional training & orientation sessions.	Moderate	Possible	Major	There is built-in overlap between all project members creating redundancy in the system. Each staff member shares information about their workload with other colleagues so that no information is held by a single person. The notice period of each staff member is sufficient to ensure a smooth transition of responsibility.	Moderate

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.).

⦿ No

Please upload your Risk Register, with Delivery Chain Risk Map, here.

Darwin Extra_Risk Register_FINAL
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xlsx 105.51 KB

Section 9 - Workplan

Q24. Workplan

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

Darwin Extra_Project Workplan
11/09/2024
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docx 56.5 KB

Section 10 - Monitoring and Evaluation

Q25. Monitoring and evaluation (M&E)

Describe how the performance 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).

Darwin Initiative Extra Projects are required to commission an Independent Final Evaluation to report by the time that the project completes. The cost of this should be included in the project budget, and within the total project cost for M&E.

The project's M&E system will provide the information required to measure progress against each project output and outcome, and to make informed decisions about the need for adapting or refining project activities. We will use the following approaches:

Monitoring surveys: Data on each indicator will be collected annually using the data collection platform 'Open Data Kit' customised for our study context in our previous Darwin project. We use both quantitative methods (household surveys, crop yield measurements and biodiversity surveys on control/treatment sites; BACI design) and qualitative methods (e.g., focused group discussions and interviews) to quantify outcomes and attribute them to specific activities. A gender disaggregated database of project beneficiaries, outputs and outcomes will be updated on a regular basis enabling us to review progress indicators during each monthly meeting. Project staff will also monitor and document any changes in social or political context which may impact the project.

Activity-Output Monitoring: There will be monthly online meetings to update the whole project team on project activities and measure progress against each output indicator. Data from the monitoring surveys (both quantitative and qualitative) will be presented and discussed. In addition, senior project staff will make annual visits to field sites to assess whether project activities are leading to the anticipated outputs through discussions with local staff and project beneficiaries. Project stakeholders and media will be invited to join the monitoring

visits and contribute feedback.

Output-Outcome Monitoring: Annual review workshops with project staff, collaborators and stakeholders will be used to assess whether project outputs are contributing to achieving anticipated project outcomes. Data on our outcome-level indicators (e.g. pollinator abundance, crop yields, household income, policy change) will be analysed to assess whether sufficient progress is being made. All of the output and outcome-level assumptions will be revisited to ensure they still apply. If any assumptions no longer hold, or there is inadequate progress towards project outcomes, we will hold discussions with key stakeholders and adapt activities as necessary. This information will be summarised in each annual report and an independent project evaluation will be commissioned in the final year of the project.

Public hearing and stakeholder feedback: We will conduct a public hearing in the project inception phase to discuss our activities and objectives with project beneficiaries/stakeholders and share our safeguarding policies. An annual social audit (collecting feedback from stakeholders) will be conducted to ensure value for money is achieved and check for any unintended negative impacts of the project, including any safeguarding issues.

M&E management: Project leader Memmott is responsible for overall project M&E including project reporting, financial audits and review of the progress indicator data. Each implementation partner (LI-BIRD, HERD & AFU) will ensure the M&E of their own project activities and will feed their data/information into a central project database and report progress & feedback in monthly team meetings. A full-time 'M&E Officer' will be employed by both LI-BIRD and HERD and a major part of their role will be to oversee the collection, curation and analysis of M&E data.

Independent Final Evaluation in GBP	[redacted]
Independent Final Evaluation (%)	[redacted]
Total project budget for M&E (£) **(this may include Staff and Travel and Subsistence Costs)**	[redacted]
Total project budget for M&E (%) **(this may include Staff and Travel and Subsistence Costs)**	[redacted]
Number of days planned for M&E	[redacted]

Section 11 - Logical Framework & Standard Indicators

Q26a. 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 will measure progress against these and how we can verify this.

DarwinExtra_Logframe and TOC_FINAL
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Impact:

Improved conservation & management of pollinators across the Himalayas leading to healthier communities, economies and ecosystems

Outcome:

A national-level regime shift in pollinator awareness, management, research and conservation policy leading to enhanced pollinator biodiversity, increased crop yields and improved livelihoods

Project Outputs
Output 1: National pollinator awareness and education campaign to raise the public profile of pollinators in Nepal leading to increased understanding, engagement, and conservation action
Output 2: Farmer engagement program in 12 districts of Nepal to co-design locally-relevant agroecological interventions to enhance biodiversity and crop yields on smallholder farms
Output 3: Sustainable beekeeping initiative to support, connect and upscale beekeeping activities across Nepal leading to increased income and economic opportunities for marginalised farmers, women and youths
Output 4: Strengthening pollination research in Nepal through capacity-building, international partnerships, and the establishment of a Pollination Research Hub and centre of excellence
Output 5: National Pollinator Strategy for Nepal to improve legislative protection and build pollination management capacity into all tiers of government

Do you require more Output fields?

⦿ Yes

Output 6: Himalayan Pollinator Network for sharing knowledge, fostering collaboration and building a regional network of pollination expertise and action
Output 7: *No Response*
Output 8: *No Response*

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.

OUTPUT 1:

1.1 Recruit project staff and conduct a seven-day Training of Trainers (ToT) course for all project staff on

agroecosystem services, pollinator biodiversity and management, ecological data collection and teaching methods.
1.2 Organize 24 stakeholder engagement workshops to secure buy-in and gather strategic feedback at the start and end of the project.
1.3 Develop and distribute 50,000 leaflets, 1,000 pollinator-themed T-shirts, 2,400 posters, 50 ToT manuals, and 200 FFS manuals to raise awareness across the nation.
1.4 Produce a pollinator story-telling children's book, including information on pollinator-dependent crops, key pollinators and pollination management guidance. Distribute to 2000 students and teachers across 12 districts.
1.5 Produce two pollinator education/promotion videos for mass awareness among farmers, frontline extension workers, and children, to be used in pollinator awareness classes and training sessions.
1.6 Launch mass media campaigns through radio, TV, and social media. Partner with local media to promote pollinator conservation.
1.7 Conduct training workshops for 1,200 stakeholders (48 workshops) across 12 districts on agroecological approaches, pollinator conservation and habitat management, selecting 600 participants to join a volunteer network supporting ongoing conservation efforts.
1.8 Run outreach facilitator-led pollinator education, awareness, and training classes for a total of 48,000 participants across 12 districts.
1.9 Collaborate with community volunteers and local governments to create 9 pollinator-friendly urban green spaces involving local communities and volunteers in plantation and habitat management.
1.10 Train 360 school teachers (30 per district) on the importance of pollination, conservation strategies, and integrating pollinator conservation into school curricula.
1.11 Run teacher-led pollinator education, awareness, and training classes for 24,000 students across 12 districts.
1.12 Organize 36 pollinator-friendly school garden competitions, pollinator talent competitions, and exposure visits (one per district for 3 years) to engage 12,000 students in pollination conservation activities.
1.13 Develop and integrate chapters on the importance of pollinators and conservation into 120 school courses across 12 districts.
1.14 Conduct baseline and endline surveys to assess public perception, knowledge, and behavior regarding pollinator conservation across all 12 districts at the start and end of the project.
1.15 Organize one National Pollinator Parade event with participation from volunteers, school children, government, NGOs, and farming communities.

OUTPUT 2:
2.1 Train and mobilize 108 lead farmers (>50% women) by conducting a seven-day Training of Trainers (ToT) courses (one in each 12 districts).
2.2 Establish 72 farmer-led demonstration plots on lead farmer's land (6 per district) integrating agroecological approaches and pollinator stewardship scheme (pollinator-friendly habitat and management practices).
2.3 Run Farmer Field School (FFS) sessions every month on demonstration plots led by the local facilitators (lead farmers), with 25 FFS participants each year for three years, benefiting 5,400 farmers through the adoption of agroecological farming practices.
2.4 Conduct annual follow-up surveys of 20% of farmers attending the Farmer Field School sessions to record adoption and out-scaling rates of agroecological farming and pollinator stewardship uptake.
2.5 Conduct baseline and follow-up surveys of farms participating in the agroecological FFS and pollinator stewardship scheme recording biodiversity and livelihood outcomes. Data used for M&E purposes and published as open-access paper.
2.6 Facilitate 24 exchange visits for lead-farmers to learn from successful agroecological farms and FFS session management.
2.7 Regularly evaluate project outcomes, document lessons learned, and publish findings. Target: 4 annual evaluation reports and 1 open-access publication by the end of the project.

OUTPUT 3:
3.1 Conduct 15 sustainable beekeeping and entrepreneurship development training events for at least 450

women and youths
3.2 Support the establishment of 300 women and youth-led model beekeeping enterprises in disaster prone and climate affected communities
3.3 Support the private sector in diversifying bee products, branding and quality assurance in partnership with Federation of Nepal Beekeepers and Beekeeping cooperatives
3.4 Support the promotion of native bees and associated tourism in 3 community homestays from each of the three study provinces
3.5 Develop standards for sustainable honey harvesting of wild bees in collaboration with honey hunters, local government, and the Centre for Industrial Entomology Development (CIED)
3.6 Support existing beekeepers groups to build beekeeping knowledge & capacity, diversify bee products and promote the use of beehives in crop pollination
3.7 Support the establishment of three community-led native bee resources centres for the promotion of native bees
3.8 Work with the private sector to strengthen beekeeping equipment manufacturing enterprises and improve access to these technologies

OUTPUT 4:
4.1 Organize a curriculum workshop on pollinator-based courses in coordination with other with universities, training colleges, and research institutes in Nepal to share expertise and build capacity.
4.2 Co-design a course module on pollination ecology, integrating it into the standard undergraduate and masters program at Agriculture & Forestry University (AFU)
4.3 Establish a comprehensive pollination research facility equipped with survey tools like sweep nets, malaise traps and pinning supplies; and a database of experimental and field study sites for use by researchers.
4.4 Establish a national pollinator reference collection at AFU with pest-proof cabinets, mounting and pinning supplies and work space
4.5 Conduct collection visits to all major agroecological zones of Nepal to start building a nationally-representative insect collection
4.6 Insect specimens are mounted, identified and curated by specialist taxonomists enabling easy access and use by future researchers
4.7 Conduct three 5-day parataxonomy training courses (one in Y1,2,3) led by an expert taxonomist and attended by students and researchers from Nepal enabling them to gain basic identification skills which they can use in future research projects.
4.8 Establish the 'Darwin Pollination Scholarship Program' – a competitive program for 8 outstanding students from Nepal (2/year; at least 50% women) to conduct a 4-month research visit to an international pollination ecology research group.
4.9 Provide funding for AFU academics to attend 6 international conferences (2 in Y1,2,3) and establish research collaborations with international institutes during their visit.
4.10 Update and expand the existing Digital Pollination Library (developed in the current Darwin Project) hosted by Agriculture and Forestry University (AFU).

OUTPUT 5:
5.1 Conduct four 'Training of Trainer' (TOT) courses on pollinator conservation, and pollination management for at least 120 federal and provincial extension workers and network partners in collaboration and coordination with national and provincial training centres
5.2 Organize 12 district level capacity building trainings on pollinator conservation and pollination management for at least 360 agriculture extension workers from government agencies and development partners working in agriculture and livelihoods
5.3 Develop and mainstream an official online certification course in pollinator conservation and pollination management targeted at extension workers, development practitioners and aspiring students
5.4 Provide technical support to the Karnali government for implementing the Karnali Pollinator Strategy developed in the previous Darwin project
5.5 Integrate the Farmer Field School (FFS) manual on Pollinator conservation and management into the regular

course curricula of provincial and national agriculture training centres.
5.6 Produce a national policy brief on pollination management outlining the potential for its integration into agricultural systems in Nepal
5.7 Organize 3 pollinator workshops with the Municipal Association of Nepal (MuAN) and National Association of Rural Municipalities in Nepal (NARMIN) for awareness and sensitization engaging 120 stakeholders
5.8 Conduct 4 policy dialogue workshops with federal and provincial ministries and line agencies for integrating pollinator habitat conservation into their ongoing policies and plans.
5.9 Develop three municipal-level pollinator management action plans (one in each study province) serving as pilot plans to feed into the National Pollinator Strategy
5.10 Establish a national-level technical working group with periodic meetings to oversee the development of the National Pollinator Strategy
5.11 Organize provincial-level and national level workshops led by the technical working group to identify policy solutions to conserving and enhancing pollinator services with the participation of 80 high-level government stakeholders
5.12 Publish a National Pollinator Strategy for Nepal, co-developed and endorsed by the federal government.

OUTPUT 6:
6.1 Co-organize two regional and international learning sharing workshops jointly with Universities, International Centre for Integrated Mountain Development (ICIMOD), Asian Apiculture Initiative (AAA), and Himalayan Agroecology Initiative (HAI) with participation of at least 200 national and international participants
6.2 Conduct one in-country and one cross-country knowledge exchange visit for staffs, extension workers and policy makers in partnership with provincial ministries and ICIMOD
6.3 Revive the Hindu-Kush-Himalaya based regional pollinator networks with support from ICIMOD
6.4 Establish a national platform of pollinator experts and practitioners for learning, sharing and networking
6.5 Establish a pollinator conservation park at the National Agriculture Genetic Resource Center (NAGRC) in partnership with ICIMOD
6.6 Publish a scientific paper on pollinator conservation in the Himalayan region an assessment report on beekeeping as a disaster recovery tool jointly with Universities, ICIMOD, NARC and other professional networks
6.7 Key staff participate and share our project findings at two international conferences

Q26b. Standard Indicators

Standard Indicator Ref & Wording	Project Output or Outcome this links to	Target number by project end	Provide disaggregated targets here
e.g. DI-A01: Number of people in eligible countries who have completed structured and relevant training	**e.g. Output indicator 3.4 / Output 3**	**e.g. 60**	**e.g. 30 non-indigenous women; 30 non-indigenous men**
DI-A01: Number of people in eligible countries who have completed structured and relevant training	Output indicators: 1.5, 2.2, 3.1, 4.2, 5.2, 5.5 (Outputs 1,2,3,4,5)	7450	3,800 indigenous women ; 2700 indigenous men, 350 non-indigenous women ; 600 non-indigenous men
DI-A03: Number of local or national organisations with enhanced capability and capacity	Output indicators: 1.5, 2.2, 3.1, 4.2, 5.2, 5.5 (Outputs 1,2,3,4,5)	140	Public Nepali organisations: 130; Private Nepali organisations: 10

DI-B07: Number of policies with biodiversity provisions that have been enacted or amended	Output indicators: 5.1, 5.3 (Output 5)	4	National-level enacted: 1; Local-level enacted: 3
DI-C01: Number of best practice guides and knowledge products published and endorsed	Output indicators: 1.3, 3.3, 4.4, 5.4, 5.5, 6.2, 6.4 (Outputs: 1,3,4,5,6)	9	Course curriculums in Nepalese: 3; Training manuals in Nepalese: 2; Videos in Nepalese: 2; Publications in English: 2
DI-D03: Number of people with enhanced livelihoods	Outcome indicator: 0.3; Output indicator: 450	5450	3,270 indigenous women; 2,180 indigenous men; Agriculture & beekeeping: 5450
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*	*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*	*No Response*	*No Response*

If you cannot identify three Standard Indicators you can report against, please justify this here.

No Response

Section 12 - Budget and Funding

Q27. Budget

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

Darwin Extra budget_FINAL
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xlsx 104.37 KB

Q28. Alignment with other funding and activities

We expect projects to clearly demonstrate that they are additional and complementary to other activities and funding in the same geographic/thematic area or region.

Are you aware of any other organisations/projects carrying out or planning activities, or applying for funding for similar work in this geography or sector?

⦿ No

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?

We outline below how our project meets each of the four 'value for money' criteria:

ECONOMY: We will capitalise on the evidence-base and establishment costs of two previous projects (totaling more than £1.48 million in funding) which enable us to achieve far more than would ever be possible with the requested amount. A rigorous data collection exercise was completed during a three year research project, and equipment from both this and the ongoing Darwin Main project can be directly transferred onto on this Darwin Extra project. Moreover, many staff from our previous projects will be able to apply to work on this project, potentially saving substantial training costs and enabling us to start with a more highly trained workforce than would be expected. All implementation partners have robust economy systems built into their budgeting, procurement and operations including comprehensive supplier vetting, competitive bidding and rigorous internal audits.

EFFICIENCY: Our previous projects have enabled us to test a range of different approaches and identify the most cost and time-efficient pathways for meeting a given outcome. For example, partners HERD conducted a cost-benefit analysis in the previous Darwin project and found that awareness classes and farmer-led Farmer Field School sessions represented the best value for money by achieving substantial impacts for relatively low costs. In this Darwin Extra Project, we will capitalise on our previous experience and allocate resources directly to the most impactful activities. In addition, our project partners will use an institutionalised fund-flow-analysis (FFA) tool for checking that invested resources are reaching the intended target groups.

EFFECTIVENESS: Many of the activities in this Darwin Extra project are known to be effective as they were assessed via the monitoring and evaluation process of our previous Darwin project. For example, we have demonstrated that pollination awareness classes and Farmer Field School sessions lead to behaviour change by farmers resulting in measurable improvements for biodiversity and livelihoods. Thus, we can be confident that funding spent on these activities will lead to measurable impacts, ensuring value-for-money.

EQUITY: By specifically targeting marginalised groups in our activities (including isolated rural populations, women, and young people) we will ensure that project resources, and the benefits derived from them, are distributed fairly and inclusively, helping to address societal inequalities.

CO-FUNDING: we have secured £40K in matched funding from the Bristol Centre for Agricultural Innovation as well as £365K of in-kind funding from partner organisations.

Q30. Capital items

If you plan to purchase capital items with Darwin Initiative 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.

Our project has minimal capital costs (just 3%) as much of the fieldwork kit (including survey equipment, Android tablets and motorbikes) will be inherited from our previous two projects. The few capital items that we do purchase (taxonomy equipment and storage cabinets, laptops and pollinator fieldwork equipment) will all remain in-country with the project partners, for use by the Pollinator Innovation Centre and future projects in

Nepal. The fieldwork and taxonomy equipment will provide a valuable long-term asset to Nepal by facilitating national and international research activities.

Section 13 - Safeguarding and Ethics

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 operation.

Please outline how your project will ensure:

(a) beneficiaries, the public, implementing partners, and staff are made aware of your safeguarding commitment and how they can 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 also meet these standards and policies.

Indicate which minimum standard protocol your project follows and how you meet those minimum standards, i.e. CAPSEAH, CHS, IASC MOS-PSEA. If your approach is currently limited or in the early stages of development, please clearly set out your plans to address this.

The poverty, isolation and low levels of education/literacy amongst our target communities make them vulnerable to safeguarding issues including exploitation, bullying and sexual abuse. We will follow the Minimum Operating Standards of Protection from Sexual Exploitation and Abuse (MOS-PSEA) and ensure all project staff and stakeholders follows these standards.

a) How staff and stakeholders are made aware of our safeguarding standards:
The University of Bristol (UoB) has a comprehensive safeguarding policy (attached) which outlines how issues are investigated, recorded and handled; our project will align with these stringent standards as well as those outlined in MOS-PSEA. All project staff will be required to sign a code-of-conduct upon recruitment and will attend a safeguarding session as part of their training, emphasising the importance of good conduct, make them aware of potential safeguarding concerns and teaching them how to recognise and deal with issues, including acting as whistle-blowers. Our project safeguarding standards will also be read out to all stakeholders and they will be made aware of our safeguarding focal person.

b) How safeguarding issues are handled:
Both key implementing partners (HERD and LI-BIRD) have assigned a safeguarding officer with up-to-date training to oversee safeguarding standards and handle any complaints. All project staff and direct beneficiaries will be made aware of these safeguarding officers and given their contact details so that they can share issues confidentially, if required. Any reported issues will be escalated to the project lead (Jane Memmott) and handled in-accordance with the UoB safeguarding policy.

c) How we will ensure project partners meet these standards and policies:
Safeguarding assessments will be built into our monitoring and evaluation framework to assess whether our zero-tolerance standards are being met by all project partners and staff members.

Defra recommend you appoint a safeguarding focal point to ensure the project's PSEAH work is taken forward. This can be a separate member of staff or a current member of staff who spends a proportionate amount of time for safeguarding and PSEAH activities. Please name this individual here - this person should also be included in your overall staff list at Q34 and in your budget.

[redacted]

Q32. Ethics

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

Strong ethical principles are embedded within our project design and will be implemented through the following steps:

1) Completion of the University of Bristol's ethics review process along with the equivalent Nepali ethics review processes will ensure we are aligned with both international and local ethical principles, particularly those relating to the rights, privacy, and safety of participants and the recognition of traditional knowledge systems.

2) Although Nepal does not have an access and benefit sharing law, we will follow the internationally recognised best practices and obtain Prior Informed Consent before the collection of any participant data. Project partners LI-BIRD have influenced Nepal's farmer rights policy and therefore have the expertise and commitment to uphold ethical principles.

3) All local partners were deeply involved in the planning and design of this project, contributing to all proposal drafts and directly suggesting most of the planned activities. We also engage many traditionally marginalised stakeholders (e.g., women farmers) in our project to ensure their perspectives and aspirations are well-represented.

4) In alignment with the General Data Protection Regulation (GDPR), all person-identifiable information will be kept strictly private; only anonymised data will be published or shared.

Section 14 - 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.

Evidence of contact with FCDO
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Section 15 - 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?
Jane Memmott	**Project Leader**	10	Checked
Thomas Timberlake	International Pollination Expert	3	Checked
Sushil Baral	Technical advisor (HERD)	3	Checked
Sujan Sapkota	Team Leader (HERD)	100	Checked

Do you require more fields?

⦿ Yes

Name (First name, Surname)	Role	% time on project	1 page CV or job description attached?
Kedar Devkota	Team Leader (AFU)	20	Checked
Dipesh Neupane	Team Leader (LI-BIRD)	100	Checked
Daya Ram Bhusal	Technical Advisor (TU)	3	Checked
To be appointed	Project Coordinator (Bristol)	100	Checked
To be appointed	Administration & Finance Officer (Bristol)	20	Checked
To be appointed	Training Officer (LI-BIRD)	100	Checked
To be appointed	Policy and Communications Officer (LI-BIRD)	100	Checked
To be appointed	Communications & Monitoring Officer (HERD)	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.

All core staff CVs
11/09/2024
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pdf 1.36 MB

Have you attached all project staff CVs?

⦿ Yes

Section 16 - Project Partners

Q35. Project Partners

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

Lead Organisation name:	University of Bristol, School of Biological Sciences
Website address:	www.bristol.ac.uk/biology/
Why is this organisation the Lead Organisation, and what value to they bring to the project? **(including roles, responsibilities and capabilities and capacity):**	REMIT & CAPACITY: Bristol University is a world leader in pollination research, with over 25 years' experience running pollination projects, including in Nepal, New Zealand, South Africa and the UK. Project leader Jane Memmott has an excellent track record in leading large international projects and driving major policy change. For example, in the [redacted] Urban Pollinators Project, Memmott led a team of four universities and four conservation organisations to understand more about pollinator biodiversity in urban areas. The results were fed directly into local, regional, national (National Pollinator Strategy), and international pollinator policies (IPBES report). In our previous two pollination projects in Nepal, Memmott (project leader) & Timberlake (Project Coordinator) successfully led a large international, interdisciplinary team, collecting a comprehensive evidence-base, and demonstrating the effectiveness of pollination management for enhancing biodiversity and livelihoods - an approach that will be built upon in this project. In this Darwin Extra application, Memmott remains as project leader (though the project is co-developed by all partners) and Timberlake will be an Expert Consultant to provide continuity and expertise across the three projects. KEY PROJECT ROLES: 1) Overall project management and coordination. Data management, M&E, paper and report writing. 2) International pollination and policy expertise
International/In-country Partner	⊙ International
Allocated budget (proportion or value):	[redacted]
Represented on the Project Board (or other management structure)	⊙ Yes
Have you included a Letter of Support from the Lead Organisation?	⊙ Yes

Do you have partners involved in the Project?

⊙ Yes

1. Partner Name:	Local Initiatives for Biodiversity, Research and Development (LI-BIRD)

Website address:	www.libird.org
What value does this Partner bring to the project? **(including roles, responsibilities and capabilities and capacity):**	PARTNER TYPE: implementation partner REMIT & CAPACITY: LI-BIRD is a Nepalese NGO working on the research and development of agricultural biodiversity and sustainable agriculture for the benefit of rural communities. It works closely with federal and provincial government ministries including the Ministry of Agriculture and Livestock Development (MoALD) and Nepal Agriculture Research Council (NARC). At the Federal level, LI-BIRD is a member of the National Agricultural Biodiversity Coordination Committee (NABCCC) and National Food Security Committee (NFSC) and contributes to national policies and planning of the sector. LI-BIRD is currently implementing agroecology projects across 19 districts (5 provinces) including all of our focal project areas. At a policy-level LI-BIRD is working with the federal government to prepare a National Agroecology Roadmap for Nepal as well as a contributing to the Himalayan Agroecology Initiative – both of which are important policy frameworks for implementing our National Pollinator Strategy. KEY PROJECT ROLES: LI-BIRD has designed and will implement the following three outputs: Output 3: Sustainable Beekeeping Initiative Output 5: National Pollinator Strategy for Nepal Output 6: Himalayan Pollinator Network
International/In-country Partner	⦿ In-country
Allocated budget:	[redacted]
Represented on the Project Board (or other management structure)	⦿ Yes
Have you included a Letter of Support from this partner?	⦿ Yes

2. Partner Name:	HERD International
Website address:	https://www.herdint.com/

What value does this Partner bring to the project? **(including roles, responsibilities and capabilities and capacity):**	REMIT & CAPACITY: HERD International is a Nepal-based research and development organisation, with a track-record of generating high quality evidence and incorporating it into national policies through close partnership with government departments such as the Ministry of Health and Population. HERD have led numerous large projects across Nepal including as the main implementors of our two previous pollination projects in Nepal. Their excellence in project delivery is reflected in the success of the previous Micro-Poll project and ongoing Darwin pollination project, which established the evidence-base and blueprint on which this proposed project will build. HERD have expertise in pollination ecology, human nutrition and agriculture and have the resources and facilities to effectively deliver their component of the project. KEY PROJECT ROLES: HERD has designed and will implement the following two outputs: Output 1: National Pollinator Awareness Campaign Output 2: Farmer Engagement Program
International/In-country Partner	⦿ In-country
Allocated budget:	[redacted]
Represented on the Project Board (or other management structure)	⦿ Yes
Have you included a Letter of Support from this partner?	⦿ Yes

3. Partner Name:	Agriculture and Forestry University (AFU)
Website address:	www.afu.edu.np

What value does this Partner bring to the project? **(including roles, responsibilities and capabilities and capacity):**	PARTNER TYPE: implementation partner REMIT & CAPACITY: AFU is a government-funded university in Nepal committed to promoting agriculture and forestry through teaching, research, and extension programs. AFU is a project partner in the ongoing Darwin pollination project and has a Memorandum of Understanding with LI-BIRD to support them in research activities. Dr Kedar Devkota is the AFU staff member on this application and has considerable expertise in studying pollinator ecology and crop pollination in Nepal. As well as leading on research projects, AFU has a track record in policy engagement and outreach work, especially with regards to promoting sustainable agricultural practices. This Darwin Extra project will establish a new Pollination Innovation Centre at AFU to build research capacity and provide a springboard for ongoing research and training activities in pollination ecology and management in Nepal. KEY PROJECT ROLES: AFU has designed and will implement the following output: Output 4 – Strengthening Pollination Research in Nepal
International/In-country Partner	⦿ In-country
Allocated budget:	[redacted]
Represented on the Project Board (or other management structure)	⦿ Yes
Have you included a Letter of Support from this partner?	⦿ Yes

4. Partner Name:	Nepal Department of Agriculture (DoA)
Website address:	https://doanepal.gov.np/content/2/2018/30229699/

What value does this Partner bring to the project? **(including roles, responsibilities and capabilities and capacity):**	PARTNER TYPE: facilitation partner REMIT & CAPACITY: The Department of Agriculture (DoA) is an apex body under the national Ministry of Agriculture and Livestock Development (MoALD). It has an overall mission to achieve food security and poverty reduction through increasing agricultural production and enhancing the market competitiveness of Nepalese agriculture as well as ensuring the sustainable use of natural resources through conservation of the environment and biodiversity. DoA recognizes the importance of pollinators and their contribution to increasing agricultural productivity and were responsible for the development of the Bee Promotion Policy (2016), which is now getting revisited to integrate pollination services through managed and wild bees. DoA consider pollination management as an essential agricultural input and welcome our proposal to develop a National Pollinator Strategy and train agricultural officers and extension staff in pollination management (see letter of support) KEY PROJECT ROLES: The DoA will be responsible for co-developing and implementing the National Pollinator Strategy (Project Output 5). They will also be important partners in driving forward the Sustainable Beekeeping Initiative (Output 3).
International/In-country Partner	⊙ In-country
Allocated budget:	[redacted]
Represented on the Project Board (or other management structure)	⊙ Yes
Have you included a Letter of Support from this partner?	⊙ Yes

5. Partner Name:	International Centre for Integrated Mountain Development (ICIMOD)
Website address:	www.icimod.org

What value does this Partner bring to the project? **(including roles, responsibilities and capabilities and capacity):**	PARTNER TYPE: Knowledge exchange & scaling partner REMIT & CAPACITY: ICIMOD is an intergovernmental knowledge and learning centre working on behalf of the people of Hindu Kush Himalaya (HKH) region. It works in eight regional member countries – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan. It works to improve the lives and livelihoods of people of the HKH, and protect mountain environments and cultures. It helps people from the HKH become more resilient, make the most of new opportunities, and prepare for change. It also strengthens regional cooperation for conservation and sustainable mountain development. ICIMOD have previously worked on pollination in this region and were the first organisation to document pollinator declines across the Himalayan region (Partap et al. 2012). The proposed project aligns closely with ICIMODs key missions and expertise as it seeks to reverse pollinator declines in the HKH region, benefitting millions of smallholder farmers through increased agricultural productivity and resilience. KEY PROJECT ROLES: ICIMOD will be the key partner for scaling-up project activities, expertise and knowledge materials across the Himalayan region through the establishment of the Himalayan Pollination Network.
International/In-country Partner	⊙ International
Allocated budget:	[redacted]
Represented on the Project Board (or other management structure)	⊙ Yes
Have you included a Letter of Support from this partner?	⊙ Yes

6. Partner Name:	Federation of Nepal Beekeepers (FNBK)
Website address:	www.fnbk.org.np

What value does this Partner bring to the project? **(including roles, responsibilities and capabilities and capacity):**	PARTNER TYPE: facilitation partner REMIT & CAPACITY: The FNBK is a national umbrella organization established in 1999. It has multiple objectives including: i) organizing the scattered grass-root level beekeepers across the country; ii) engaging with policymakers to influence policy and create a supportive environment for beekeeping in Nepal; iii) working with the private sector to improve the branding and marketing of bee products (honey etc.); iv) strengthening the capacity of beekeepers to improve their entrepreneurship and market access. Approximately 13,800 beekeepers from 37 districts across seven provinces are affiliated with FNBK, giving it a wide and influential reach. Through the promotion of sustainable beekeeping practices, FNBK aims to create new economic opportunities for vulnerable and marginalised populations, helping to tackle poverty in Nepal. KEY PROJECT ROLES: FNBK is interested in the promotion of native bees for both income generation and enhancing crop pollination services (see letter of support). We will work with them in this project to integrate managed crop pollination into standard beekeeping practices and develop sustainable guidelines for stingless beekeeping and wild honey harvesting.
International/In-country Partner	⦿ In-country
Allocated budget:	[redacted]
Represented on the Project Board (or other management structure)	⦿ Yes
Have you included a Letter of Support from this partner?	⦿ Yes

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

We are working with three other key partners outlined below. Letters of support are provided for each one.

1) Centre for Industrial Entomology Development (CIED) is a mandated institution under the Department of Agriculture (see letter of support) who promote beekeeping and other entomology-related industries. They will be a key partner in the development of a National Pollinator Strategy and will be responsible for implementing many of its recommendations.

2) The Central Department of Zoology at Tribhuvan University (TU) specialises in ecology and entomology. Our point of contact with TU is Dr Daya Bhusal – an expert entomologist and pollination ecologist who has worked in Nepal for over 15 years. Daya was a key member of our previous pollination projects and will lead the taxonomic training courses in this project.

3) Ministry of Land Management, Agriculture and Cooperatives (MoLMAC) in Karnali & Gandaki Provinces. We are partnering with the government of two key provinces of Nepal where rates of crop pollinator dependence are

highest. These ministries work in close partnership with the federal government and district offices to design and implement agricultural policy and they will be the first two provinces to implement the recommendations of the National Pollinator Strategy.

Please provide a combined PDF of all letters of support.

ALL letters of support
11/09/2024
10:43:03
pdf 5.35 MB

Section 17 - Lead Partner Capability and Capacity

Q36. Lead Organisation 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

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

Reference No	Project Leader	Title
29-001	Jane Memmott	Embedding Sustainable Pollination Management into Nepalese Agricultural Systems
EIDPS002	Jane Memmott	Fellowship for Ruth Boada
14-008	Gareth Jones	The Darwin Initiative Centre for Bat Conservation in China
EIDPR100	Richard Wall	Agricultural intensification and African dung-insect biodiversity
EIDPR104	Fernando Montealgre-Z	Non-invasive acoustic identification of singing amphibians in Sri Lanka
No Response	*No Response*	*No Response*

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

⦿ Yes

Section 18 - Certification

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 made ineligible.

On behalf of the

Company

of

University of Bristol

I apply for a grant of

£2,680,628.00

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, cover letter, letters of support, a budget, risk register (inclusive of delivery chain risk map), logframe, theory of change Safeguarding and associated policies, and project workplan (uploaded at appropriate points in the application).
- Our last two sets of signed audited/independently verified accounts and annual report (covering three years) are also enclosed.

Checked

Name	Ben Moore
Position in the organisation	Finance Manager
Signature (please upload e-signature)	electronic signature 13/09/2024 09:43:44 pdf 28.43 KB
Date	13 September 2024

Please attach the requested signed audited/independently examined accounts.

UoB financial statement_2021-22	UoB financial statement_2022-23
10/09/2024	10/09/2024
20:14:16	20:14:16
pdf 801.65 KB	pdf 764.77 KB

Please upload the Lead Organisation's Safeguarding Policy, Whistleblowing Policy and Code of Conduct as a PDF. Optionally you can also upload your Health, Safety and/or Security policy or Security Plan here.

Wistleblowing policy_University of Bristol
10/09/2024
20:14:41
pdf 375.59 KB

Safeguarding policy_University of Bristol
10/09/2024
20:14:41
pdf 144.57 KB

Health and safety policy_University of Bristol
10/09/2024
20:14:40
pdf 162.13 KB

Code of Conduct_University of Bristol
10/09/2024
20:14:40
pdf 60.48 KB

Section 19 - Submission Checklist

Checklist for submission

	Check
I have read the Guidance, **including the "Darwin Initiative Guidance", "Monitoring Evaluation and Learning Guidance", "Standard Indicator Guidance", "Risk Guidance", and "Finance 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 a budget based on UK government financial years **i.e. 1 April – 31 March and in GBP.**	Checked
I have checked that the 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 attached the below documents to my application: • **a cover letter from the Lead Organisation**	Checked
• a risk register, **including** delivery chain risk map, **as an Excel file using the template provided**	Checked
• **a** completed logframe **as a PDF using the template provided and using "Monitoring Evaluation and Learning Guidance" and "Standard Indicator Guidance".**	Checked
• **a 1 page Theory of Change as a PDF which includes the key elements listed in the guidance**	Checked
• **a** budget **(which meets the requirements above) using the template provided.**	Checked
• **a signed copy of the last 2 annual report and accounts (covering three years) for the Lead Organisation, or provided an explanation if not.**	Checked
• **a completed workplan as a PDF using the template provided.**	Checked
• **a copy of the Lead Organisation's Safeguarding Policy, Whistleblowing Policy and Code of Conduct (Question 31).**	Checked
• **a copy of the Lead Organisation's** Health, Safety and/or Security policy or Security Plan **(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 Organisation and partner(s) identified at Question 35, or an explanation of why not, as a single PDF.**	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
The additional supporting evidence is in line with the requested evidence, amounts to a maximum of 5 sides of A4, and is combined as a single PDF.	Checked
(If copying and pasting into Flexi-Grant) I have checked that all my responses have been successfully copied into the online application form.	Checked
I have checked the Darwin Initiative 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 Biodiversity Challenge Funds. We also provide occasional updates on other UK Government activities related to biodiversity conservation and share our regular 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 organisation, project leader, location, and total grant value).

Project Title: Upscaling pollination to enhance biodiversity and human welfare in Nepal

Project Summary	SMART Indicator	Means of Verification	Important Assumptions
Impact: Improved conservation & management of pollinators across the Himalayas leading to healthier communities, economies and ecosystems			
Outcome: A national-level regime shift in pollinator awareness, management, research and conservation policy leading to enhanced pollinator biodiversity, increased crop yields and improved livelihoods.	0.1 By the project end, an additional 500,000 people (10% of the population of our 12 study districts) understand what pollination is and recognize its value to agriculture and the environment. 0.2 Uptake of pollination management practices by 5,000 farmers (>50% women) across 12 districts of Nepal leading to a 15% increase (5% in Y2,3&4) in the abundance of key pollinating insects (bees, flies, butterflies, wasps, beetles etc.) on their farms. 0.3 The yield of pollinator-dependent crops increases by 12% on 5,000 smallholder farms across 12 districts of Nepal leading to a 10% increase in household farming income. 0.4 Abundance and species richness of plants and insect pollinators increases by 15% (5% per year) in 9 new urban green spaces across three major cities in Nepal. 0.5 Greater legislative protection for pollinators and other agrobiodiversity through the development of a National Pollinator Strategy for Nepal. 0.6 Pollination research outputs from Nepal (journal articles, student theses and conference presentations) increase 20% by project end resulting from the establishment of the new Pollination Research Hub.	0.1 Baseline and endline surveys of random households in our 12 study districts to assess pollination awareness & estimate population-level change. 0.2a Annual follow-up survey of participating farmers to record management practices. 0.2b Annual pollinator surveys using tried-and-tested pollinator survey app customised for Nepal. 0.3 Annual follow-up survey of participating farmers to record crop yields and household income 0.4 Annual plant and pollinator surveys carried out in fixed survey plots using tried-and-tested survey app customised for Nepal. 0.5 Pollinator strategies endorsed and integrated into government annual plans and programs with associated budget allocations. 0.6a Web of Science metrics 0.6b University thesis records 0.5b Conference abstracts	0.1 Awareness classes are widely attended, radio broadcasts and social media campaigns reach their target audiences and schools adopt some pollination content. 0.2a Farmers are motivated to apply the management actions they learn (this was the case in our previous project). 0.2b Habitat management is effective at increasing pollinator abundance and diversity – demonstrated in our previous project and elsewhere (e.g., Blauw & Isaacs 2015). 0.3 Pollination deficits exist in our study regions (demonstrated by existing data) and reduce when pollinator numbers are increased (proved in our previous project). 0.4 Local councils give permission for us to manage these green spaces (communications with them suggests this is likely) 0.5 Federal and provincial government departments remain committed to the promotion of biodiversity friendly farming practices (see attached letters of support). 0.6 Students and researchers in Nepal remain motivated by pollination research and are able to form national and international collaborations.

Output 1: National pollinator awareness and education campaign to raise the public profile of pollinators in Nepal leading to increased understanding, engagement, and conservation action	1.1 By project end, 48,000 participants (farmers and general public, 50% women) attend a pollinator awareness class (8000 in Y1&4, 16,000 in Y2&3) and can recognize the value of pollinators to agriculture and biodiversity & identify major pollinator groups. 1.2 By project end, at least 9 urban green spaces are identified and actively managed as pollinator-friendly zones in coordination with local municipalities. 1.3 By project end, at least 120 schools in 12 districts integrate pollinator ecology and conservation content into their school courses reaching a total of 24,000 school students (2,400 in Y1, 7,200 in Y2, Y3 & Y4). 1.4 48 radio/TV programs/messages (12 per year) across Nepal, targeting a total reach of over 1.5 million people by the end of the project period. 1.5 Deliver 48 agroecological training workshops for 1,200 stakeholders from community conservation and farming groups across 12 districts of Nepal (all in Y1). Following workshops, 600 participants join our pollinator conservation & citizen science volunteer network.	1.1a Attendance records 1.1b Pre and post-event tests for a subset of participants 1.1c Annual follow-up surveys to measure knowledge retention 1.2a Visual documentation (photos/videos) 1.2b Habitat quality assessments (number of suitable nesting sites & flower forage patches) 1.3a School course documents 1.3b Lesson plans and teaching records 1.3c Pre and post-event tests for a subset of participants 1.4a Broadcast logs and reports from radio and TV stations. 1.4b Media partnership agreements or MOUs. 1.4c Content archives (e.g., recorded programs). 1.5a Course attendance records 1.5b Pollinator volunteer group membership list	1.1 Outreach facilitators are willing to lead awareness classes. No social or cultural barriers to women participation (>16,000 farmers - 60% women - attended these classes in our previous project) 1.2 Local governments and communities are cooperative and committed to maintaining green spaces (previous experience suggests this is the case) 1.3a Schools are supportive of the initiative. 1.3b Teachers are motivated to integrate pollinator education into classes (previous experience suggests this is the case) 1.3c Local governments are cooperative and committed to incorporate the course 1.4a Public interest in pollinator conservation is sufficient to engage in the content. 1.4b Media partners consistently support the campaign. 1.5 Community conservation and farming groups are convinced by the value of pollinators and motivated to include them in their conservation efforts.
Output 2: Farmer engagement program in 12 districts of Nepal to co-design locally-relevant agroecological interventions to enhance biodiversity and crop yields on smallholder farms	2.1 By the end of Y1, 72 demonstration plots have been established by lead farmers on their farms, to showcase and test local pollination management interventions. These will serve as a venue to host the Farmer Field School (FFS) sessions. 2.2 By project end, 5,400 farmers (>60% women) attend a Farmer Field School (FFS) session on agroecological farming including	2.1a Demonstration farm establishment report; field observation and monitoring report 2.1b Visual documentation (photos/videos) 2.2a Attendance certificates & annual project reports	2.1a Lead farmers have the time and motivation to establish and manage demonstration plots (non-monetary incentives provided & previous projects shows farmers are highly engaged). 2.2a Farmers and other stakeholders have the time and motivation to attend FFS sessions (non-monetary incentives provided &

	pollinator conservation and management practices (1,800 each year for three years). Following classes, 90% of attendees can explain the value of biodiversity for their livelihoods & nutrition, list key pollinator-dependent crops, identify major pollinator groups, adopt pollinator-friendly management on their own farms and take actions to improve their nutrition.	2.2b Annual follow-up survey of subset of participating farmers 2.2c Qualitative interviews with subset of FFS participants to help attribute quantitative changes to project activities	previous projects shows farmers are highly engaged) 2.2b District officials and local government continue to support the project and grant permission to conduct FFS classes. 2.2c Participants are engaged in the classes & understand course content (level will be tailored to group ability).
	2.3 The abundance and species richness of pollinating insects (bees, flies, butterflies, wasps, beetles etc.) and wild plant species on demonstration plots increases 15% (c.5% each year after establishment), relative to baseline and controls (BACI design).	2.3 Quarterly plant and pollinator surveys carried out in fixed survey plots using tried-and-tested pollinator survey app customised for Nepal under the existing project	2.3 Habitat management practices are effective at increasing pollinator abundance and diversity – demonstrated in many other parts of the world (Blaauw & Isaacs 2014; Carvell et al. 2017)
	2.4 By project end, yields of pollinator-dependent crops on demonstration plots increase by 12% (4% each year) relative to baseline and controls, demonstrating agricultural value of stewardship scheme to stakeholders.	2.4 Crop yield measurements (following standardised FAO protocol) to quantify crop yield and compare with baseline and control plots.	2.4 Crop pollination deficits already exist in this region - shown by existing data (Partap et al. 2012; Devkota et al. 2021, Timberlake et al. 2024)
Output 3: Sustainable beekeeping initiative to support, connect and upscale beekeeping activities across Nepal leading to increased income and economic opportunities for marginalised farmers, women and youths	3.1 450 rural women and youth groups receive advanced training in sustainable beekeeping and business literacy (150 in Y1, 210 in Y2 & 90 in Y3), leading to a 30% increase in on-farm household income (from sale of bee products)	3.1a Attendance certificate, 3.1b Published training curriculum 3.1c Follow-up surveys to record changes in income	3.1 Smallholder farmers have the motivation to acquire new knowledge and the resources to invest a small amount in basic beekeeping equipment (hives made from tree logs, etc.)
	3.2 90 model beekeeping enterprises are developed in disaster prone and marginalized communities serving as an inspiration to other women/young people and promoting their engagement in the beekeeping sector.	3.2a Enterprise registration certificate 3.2b Annual questionnaires to record quantity of produce sold and price obtained	3.2 Rural women and youth have the time and resources to adopt beekeeping and establish small enterprises.
	3.3 Comprehensive guideline on the sustainable harvesting of wild honey in Nepal published by Year 3, endorsed by government	3.3a Meeting minutes of the committee which prepares the guidelines.	3.3 Government stakeholders recognise the threats posed by unsustainable harvesting methods and are cooperative in working to address them.

	partners, and viewed by 500 stakeholders by project end 3.4 Establishment of three community-led native bee resource centers (one in each study province) providing a hub of information on sustainable beekeeping practices (both native honeybees and stingless bees). Resource centre used by >500 beekeepers/visitors by Year 4	3.3b Presence of publication on the government website and viewing metrics. 3.4a Online web portal of bee resource center 3.4b Visitor records	 3.4 Government stakeholders recognise the importance of native bees and their potential to contribute towards livelihoods and crop yields.
Output 4: Strengthening pollination research in Nepal through capacity-building, international partnerships, and the establishment of a Pollination Research Hub and centre of excellence	4.1 Establish a national pollinator reference collection, with >5,000 curated insect pollinator specimens from all geographic and agricultural zones of Nepal to facilitate national and international research activities and build upon the existing Digital Pollination Library (established in the previous Darwin project). Collection established in Y1 and continues after project end. 4.2 Eight students from Nepal (2/year, 50% women) receive pollination research scholarships to undertake a four month research placement in an international pollination research group. Participants demonstrate new skills, contacts & career opportunities following the visit. 4.3 Establishment of a new pollination research facility at AFU complete with trained parataxonomists, pollination fieldwork and photography equipment, identification manuals, and a network of experimental and field sites. The facility is used by 50 local and international researchers by project end. 4.4 Development of a new pollination ecology module at AFU developed in-partnership with international pollination ecology researchers	4.1a Database of insect specimens 4.1b Photographs of the collection 4.1c Records of all visitors/users of the collection 4.2a Post study-visit reports from scholarship recipients, along with debriefing presentations for their peers to inspire other students. 4.2b Annual follow-up surveys with recipients to record career path 4.3a Parataxonomy training certificates and before/after tests 4.3b List of resources in the research facility & users of each resource 4.3c Database of research sites across Nepal with information, images and contacts for each one 4.4a Published curriculum for new pollination ecology module, with	4.1 The Nepal Agriculture and Forest University (AFU) continue to support the initiative and upkeep it after project end (see letter of support). 4.2 International host institutions agree to host the students and support their visa application (facilitated through Professor Memmott's extensive network of professional contacts) 4.3 The Nepal Agriculture and Forest University (AFU) continue to support the initiative and upkeep it after project end (see letter of support). 4.4a Students are interested in the course content and motivated to attend.

	and integrated into the current undergraduate and masters program at AFU (completed by end of Y2). 4.5 Establishment of 15 new collaborations between Nepali researchers/students and international researchers 4.6 Six researchers from Nepal attend an international conference and present work on Nepalese pollination (2 in Y1, Y2 & Y3).	course resources provided on AFU website 4.4b Student attendance register for the new course module. 4.5a Email communication 4.5b Co-authorship on papers/theses 4.6a Accepted conference abstract submissions 4.6b Travel documentation	4.4b The Nepal Agriculture and Forest University (AFU) continue to support the module and maintain it after project end (see letter of support). 4.5a International researchers are interested in collaborating (made much more likely by the presence of a research hub in Nepal) 4.6a Researchers have their abstracts and visa documentation accepted.
Output 5: National Pollinator Strategy for Nepal to improve legislative protection and build pollination management capacity into all tiers of government	5.1 Development of a National Pollinator Strategy for Nepal which is co-created and endorsed by the Nepal Department of Agriculture (DoA). 5.2 At least 360 extension workers and development practitioners (>30% women) from >25 district-based government agencies attend pollination capacity-building courses, enabling them to train and advise others and oversee pollinator monitoring (120 in Y1, 180 in Y2& 60 in Y3). 5.3 Development of 3 local-level pollinator management action plans by 3 municipalities serving as models to feed into the National Pollinator Strategy. 5.4 Pollinator conservation and pollination management training course integrated in provincial and national agriculture training agencies by the end of project 5.5 Online certification course in pollination management developed by Y2 and attended by more than 400 extension workers, development practitioners and students by project end.	5.1a Annual programs and plans for pollinator conservation from DoA 5.1b Budget allocation for pollinator conservation 5.2a Attendance certificates 5.2b Training curriculum published 5.2c Annual feedback from subset of course attendees detailing how they have used the information. 5.3 Published pollinator management action plan by each municipality 5.4a Published training curriculum of training centers 5.4b Training centers published annual program and budget 5.4c Training and event reports 5.5a Published online course syllabus 5.5 b Online Course enrolment list	5.1 Federal and local-level government departments remained committed to biodiversity-friendly farming (this is currently the case; see letters of support). 5.2 Government and non-government extension workers are committed to learning and practicing pollinator knowledge and management. 5.3 Local-level government bodies remain engaged and committed to supporting pollinator conservation and biodiversity-friendly farming (currently the case) 5.4 Federal and local-level government departments remained committed to biodiversity-friendly farming (this is currently the case; see letters of support). 5.5 Agriculture extension workers, district officers and farmers are motivated to learn new skills in insect identification and management to enhance their career opportunities.

Output 6: Himalayan Pollinator Network for sharing knowledge, fostering collaboration and building a regional network of pollination expertise and action	6.1 Regional-level workshops in 2026 & 2028 attended by 200 high-level national and international stakeholders. Following the events, successful pollination management practices/policies from Nepal inspire new actions by stakeholders in parts of Bhutan, India or Pakistan.	6.1a Published workshop proceedings 6.1b Downloads of workshop proceedings 6.1c Follow-up surveys of workshop attendees one year after the event	6.1 National and international stakeholders are motivated to attend the workshop in Nepal.
	6.2 Database of pollination-related institutions and experts working in the Himalayan region published by the project end and accessed >300 times	6.2a Published profile of institutions and experts working in pollination sector 6.2b Web metrics	6.2 Institutions and experts remain interested to collaborate and share knowledge in pollinator conservation.
	6.3 National level pollinator network established by the project end for promoting pollinator-based learning and sharing	6.3 Annual pollinator networking report	6.3 Institutes and experts agree to participate in the network
	6.4 Scientific paper on pollinator conservation in the Himalayan region published by project end in co-authorship with ICIMOD and other relevant institutions	6.4 ResearchGate and publisher metrics including Altmetric	6.4 Paper passes through peer-review process and is accepted

Output 1: National pollinator awareness and education campaign to raise the public profile of pollinators in Nepal leading to increased understanding, engagement, and conservation action

Activities:

1.1 Recruit project staff and conduct a seven-day Training of Trainers (ToT) course for all project staff on agroecosystem services, pollinator biodiversity and management, ecological data collection, teaching methods, etc.

1.2 Organize 24 stakeholder engagement workshops to secure buy-in and gather strategic feedback at the start and end of the project.

1.3 Develop and distribute 50,000 leaflets, 1,000 pollinator-themed T-shirts, 2,400 posters, 50 ToT manuals, and 200 FFS manuals to raise awareness across the nation.

1.4 Produce a pollinator story-telling children's book, including information on pollinator-dependent crops, key pollinators and pollination management guidance. Distribute to 2000 students and teachers across 12 districts.

1.5 Produce two pollinator education/promotion videos for mass awareness among farmers, frontline extension workers, and children, to be used in pollinator awareness classes and training sessions.

1.6 Launch mass media campaigns through radio, TV, and social media. Partner with local media to promote pollinator conservation.

1.7 Conduct training workshops for 1,200 stakeholders (48 workshops) across 12 districts on agroecological approaches, pollinator conservation and habitat management, selecting 600 participants to join a volunteer network supporting ongoing conservation efforts.

1.8 Run outreach facilitator-led pollinator education, awareness, and training classes for a total of 48,000 participants across 12 districts.

1.9 Collaborate with community volunteers and local governments to create 9 pollinator-friendly urban green spaces involving local communities and volunteers in plantation and habitat management.

1.10 Train 360 school teachers (30 per district) on the importance of pollination, conservation strategies, and integrating pollinator conservation into school curricula.

1.11 Run teacher-led pollinator education, awareness, and training classes for 24,000 students across 12 districts.

1.12 Organize 36 pollinator-friendly school garden competitions, pollinator talent competitions, and exposure visits (one per district for 3 years) to engage 12,000 students in pollination conservation activities.

1.13 Develop and integrate chapters on the importance of pollinators and conservation into 120 school courses across 12 districts.

1.14 Conduct baseline and endline surveys to assess public perception, knowledge, and behavior regarding pollinator conservation across all 12 districts at the start and end of the project.

1.15 Organize one National Pollinator Parade event with participation from volunteers, school children, government, NGOs, and farming communities.

Output 2: Farmer engagement program in 12 districts of Nepal to co-design locally-relevant agroecological interventions to enhance biodiversity and crop yields on smallholder farms

Activities:

2.1 Train and mobilize 108 lead farmers (>50% women) by conducting a seven-day Training of Trainers (ToT) courses (one in each 12 districts) on agroecosystem services, pollinator biodiversity and management, ecological data collection, FFS session manual, teaching-learning methods, etc.

2.2 Establish 72 farmer-led demonstration plots on lead farmer's land (6 per district) integrating agroecological approaches and pollinator stewardship scheme (pollinator-friendly habitat and management practices).

2.3 Run Farmer Field School (FFS) sessions every month on demonstration plots led by the local facilitators (lead farmers), with 25 FFS participants each year for three years, benefiting 5,400 farmers through the adoption of agroecological farming practices.

2.4 Conduct annual follow-up surveys of 20% of farmers attending the Farmer Field School sessions to record adoption and out-scaling rates of agroecological farming and pollinator stewardship uptake.

2.5 Conduct baseline and follow-up surveys of farms participating in the agroecological FFS and pollinator stewardship scheme recording biodiversity and livelihood outcomes. Data used for M&E purposes and published as open-access paper.

2.6 Facilitate 24 exchange visits for lead-farmers to learn from successful agroecological farms and FFS session management.

2.7 Regularly evaluate project outcomes, document lessons learned, and publish findings. Target: 4 annual evaluation reports and 1 open-access publication by the end of the project.

Output 3: Sustainable beekeeping initiative to support, connect and upscale beekeeping activities across Nepal leading to increased income and economic opportunities for marginalised farmers, women and youths

Activities:

3.1 Conduct 15 sustainable beekeeping and entrepreneurship development training events for at least 450 women and youths

3.2 Support the establishment of 300 women and youth-led model beekeeping enterprises in disaster prone and climate affected communities

3.3 Support the private sector in diversifying bee products, branding and quality assurance in partnership with Federation of Nepal Beekeepers and Beekeeping cooperatives

3.4 Support the promotion of native bees and associated tourism in 3 community homestays from each of the three study provinces

3.5 Develop standards for sustainable honey harvesting of wild bees in collaboration with honey hunters, local government, and the Centre for Industrial Entomology Development (CIED)

3.6 Support existing beekeepers groups to build beekeeping knowledge & capacity, diversify bee products and promote the use of beehives in crop pollination

3.7 Support the establishment of three community-led native bee resources centres for the promotion of native bees

3.8 Work with the private sector to strengthen beekeeping equipment manufacturing enterprises and improve access to these technologies

Output 4: Strengthening pollination research in Nepal through capacity-building, international partnerships, and the establishment of a Pollination Research Hub and centre of excellence

Activities:

4.1 Organize a curriculum workshop on pollinator-based courses in coordination with other with universities, training colleges, and research institutes in Nepal to share expertise and build capacity.

4.2 Co-design a course module on pollination ecology, integrating it into the standard undergraduate and masters program at Agriculture & Forestry University (AFU)

4.3 Establish a comprehensive pollination research facility equipped with survey tools like sweep nets, malaise traps and pinning supplies; and a database of experimental and field study sites for use by researchers.

4.4 Establish a national pollinator reference collection at AFU with pest-proof cabinets, mounting and pinning supplies and work space

4.5 Conduct collection visits to all major agroecological zones of Nepal to start building a nationally-representative insect collection

4.6 Insect specimens are mounted, identified and curated by specialist taxonomists enabling easy access and use by future researchers

4.7 Conduct three 5-day parataxonomy training courses (one in Y1,2,3) led by an expert taxonomist and attended by students and researchers from Nepal enabling them to gain basic identification skills which they can use in future research projects.

4.8 Establish the 'Darwin Pollination Scholarship Program' – a competitive program for 8 outstanding students from Nepal (2/year; at least 50% women) to conduct a 4-month research visit to an international pollination ecology research group.

4.9 Provide funding for AFU academics to attend 6 international conferences (2 in Y1,2,3) and establish research collaborations with international institutes during their visit.

4.10 Update and expand the existing Digital Pollination Library (developed in the current Darwin Project) hosted by Agriculture and Forestry University (AFU).

Output 5: National Pollinator Strategy for Nepal to improve legislative protection and build pollination management capacity into all tiers of government

Activities:

5.1 Conduct four 'Training of Trainer' (TOT) courses on pollinator conservation, and pollination management for at least 120 federal and provincial extension workers and network partners in collaboration and coordination with national and provincial training centres

5.2 Organize 12 district level capacity building trainings on pollinator conservation and pollination management for at least 360 agriculture extension workers from government agencies and development partners working in agriculture and livelihoods

5.3 Develop and mainstream an official online certification course in pollinator conservation and pollination management targeted at extension workers, development practitioners and aspiring students

5.4 Provide technical support to the Karnali government for implementing the Karnali Pollinator Strategy developed in the previous Darwin project

5.5 Integrate the Farmer Field School (FFS) manual on Pollinator conservation and management into the regular course curricula of provincial and national agriculture training centres.

5.6 Produce a national policy brief on pollination management outlining the potential for its integration into agricultural systems in Nepal

5.7 Organize 3 pollinator workshops with the Municipal Association of Nepal (MuAN) and National Association of Rural Municipalities in Nepal (NARMIN) for awareness and sensitization engaging 120 stakeholders

5.8 Conduct 4 policy dialogue workshops with federal and provincial ministries and line agencies for integrating pollinator habitat conservation into their ongoing policies and plans.

5.9 Develop three municipal-level pollinator management action plans (one in each study province) serving as pilot plans to feed into the National Pollinator Strategy

5.10 Establish a national-level technical working group with periodic meetings to oversee the development of the National Pollinator Strategy

5.11 Organize provincial-level and national level workshops led by the technical working group to identify policy solutions to conserving and enhancing pollinator services with the participation of 80 high-level government stakeholders

5.12 Publish a National Pollinator Strategy for Nepal, co-developed and endorsed by the federal government.

Output 6: Himalayan Pollinator Network established with multiple events and platforms for sharing knowledge, fostering collaboration and building a regional network of pollination expertise and action

Activities:

6.1 Co-organize two regional and international learning sharing workshops jointly with Universities, International Centre for Integrated Mountain Development (ICIMOD), Asian Apiculture Initiative (AAA), and Himalayan Agroecology Initiative (HAI) with participation of at least 200 national and international participants

6.2 Conduct one in-country and one cross-country knowledge exchange visit for staffs, extension workers and policy makers in partnership with provincial ministries and ICIMOD

6.3 Revive the Hindu-Kush-Himalaya based regional pollinator networks with support from ICIMOD

6.4 Establish a national platform of pollinator experts and practitioners for learning, sharing and networking

6.5 Establish a pollinator conservation park at the National Agriculture Genetic Resource Center (NAGRC) in partnership with ICIMOD

6.6 Publish a scientific paper on pollinator conservation in the Himalayan region an assessment report on beekeeping as a disaster recovery tool jointly with Universities, ICIMOD, NARC and other professional networks

6.7 Key staff participate and share our project findings at two international conferences