
IWTR6S2\1017

Illegal trade & sustainable use of medicinal orchids in Nepal

Nepal hosts >100 orchids species traded for Ayurvedic and Chinese medicines, with widespread reports of population declines. Most trade is illegal, alongside a legal quota-based harvest system. This project will produce the first-ever baseline on the illegal trade, to integrate orchids into domestic policy and facilitate appropriate enforcement. Concurrently, the project will support legal, more sustainable harvest by rural communities, implementing the world's first orchid harvester self-reporting scheme, and exert-informed Population Viability Analysis to develop science-based management.

PRIMARY APPLICANT DETAILS

Name Jacob

Surname Phelps

Website (Work) [REDACTED]

Tel (Work) [REDACTED]

Email (Personal) [REDACTED]

Address [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Section 1 - Contact Details

PRIMARY APPLICANT DETAILS

Name Jacob
Surname Phelps
Website (Work) [REDACTED]
Tel (Work) [REDACTED]
Email (Personal) [REDACTED]
Address [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

GMS ORGANISATION

Type	Organisation
Name	Lancaster Environment Centre, Lancaster University
Phone (Work)	[REDACTED]
Email (Personal)	[REDACTED]
Website (Work)	[REDACTED]
Address	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

Section 2 - Title, Dates & Budget Summary

Q3. Project title:

Illegal trade & sustainable use of medicinal orchids in Nepal

What was your Stage 1 reference number? e.g. IWTR6S1\100123

IWTR6S1\100053

Q4. Country(ies)

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

Country 1	Nepal	Country 2	No Response
Country 3	No Response	Country 4	No Response

Do you require more fields?

No

Q5. Project dates

Start date: 01 July 2020 End date: 30 June 2022 Duration (e.g. 2 years, 3 months): 2 years

Q6. Budget summary

Year:	2020/21	2021/22	2022/23	Total request
Amount:	£49,989.00	£70,005.00	£14,846.00	£134,840.00

Q6a. Do you have proposed matched funding arrangements?

Yes

What matched funding arrangements are proposed?

Matched funding is provided by the three UK/US partners:

Lancaster University (£██████ in staff time and overhead

University of Oxford (£██████ in staff time, overhead and travel expenses

University of Hawaii (US\$██████ in staff time and overhead costs

Q6b. Proposed (confirmed and unconfirmed) matched funding as % of total Project cost (total cost is the IWT Challenge Fund request plus other funding required to run the project).

Confirmed: ██████
Including unconfirmed: ██████ %

Section 3 - Project Summary & Objectives

Q7. Summary of project

Please provide a brief summary of your project, its aims, and the key activities you plan on undertaking.

Please note that if you are successful, this wording may be used by Defra in communications e.g. as a short description of the project on GOV.UK.

Please write this summary for a non-technical audience.

Nepal hosts >100 orchids species traded for Ayurvedic and Chinese medicines, with widespread reports of population declines. Most trade is illegal, alongside a legal quota-based harvest system. This project will produce the first-ever baseline on the illegal trade, to integrate orchids into domestic policy and facilitate appropriate enforcement. Concurrently, the project will support legal, more sustainable harvest by rural communities, implementing the world's first orchid harvester self-reporting scheme, and expert-informed Population Viability Analysis to develop science-based management.

Q8. What will be the Outcome of the project?

This should be an action orientated statement e.g. training provided to the judiciary results in increased successful prosecutions of poaching.

This should be the same as the Outcome statement given in Question 34.

Reduction in illegal orchid trade in Nepal, replaced by science-based sustainable alternatives, serving as an innovative model for global action to end orchid IWT.

Q9. Which of the four key IWT Challenge Fund objectives will your project address?

Please tick all that apply.

- Developing sustainable livelihoods to benefit people affected by IWT
- Strengthening law enforcement
- Ensuring effective legal frameworks

Q10. Which of the commitments made in the London Conference Declarations, the Kasane Statement and/or the Hanoi Conference does this project support?

Please provide the number(s) of the relevant commitments and some brief information on how your project will contribute to them. There is no need to include the text from the relevant commitment.

We will contribute to commitments associated with strengthening law enforcement (e.g., London 2014 X, Hanoi C), and by building capacity within law enforcement to protect specific species/populations threatened by poaching (London 2014 XIII). This includes by providing new data and engaging enforcement bodies about the realities of orchid IWT. We will further contribute to efforts for Parties to recognise IWT as a serious crime (London 2018 10). These are critical for orchid IWT, in Nepal and internationally, because it often falls into this category in international trade--high-value, involving organised networks, yet overlooked because of plants are not perceived as a priority.

We will contribute to commitments associated with working in partnerships with local communities (London 2018 13; Hanoi D), to increase their ability to pursue more sustainable livelihoods (London 2014 XVIII), better share information (Kasane 12) and retain benefits from wildlife (Kasane 10). We will do this

through provision of new data and tools to enable more sustainable management of orchid resources, and also through co-production that engages harvesters and local government units to generate and use this data.

Q11. Global Goals for Sustainable Development (SDGs)

Please detail how your project will contribute to the Global Goals for Sustainable Development (SDGs).

Goal 15 "Life on Land": It will protect and improve management of Orchidaceae--the largest family of flowering plants, heavily affected by IWT, but rarely subject to active conservation.

This requires:

Facilitating enforcement against orchid IWT in Nepal, long overlooked and threatening an ecologically culturally and economically important resource;

Providing the science and tools needed to make the legal orchid trade more sustainable, and

Building global awareness of the need for action on orchid IWT, which is not yet widely recognised as a conservation priority.

Goal 1 "No Poverty": Legal and illegal orchid harvesters are from rural, poor, marginalized, often indigenous groups. Yet, harvest is often illegal and/or unsustainable, which is a risk for reliant communities. We will contribute towards their improved economic well-being by:

Providing the first study of the economic contributions and opportunities that orchid harvest and trade make to these poor communities, to inform policies on the sustainable management of these resources;

Providing the science needed to explore how these livelihood strategies can be made both legally compliant and more sustainable into the long-term.

Goal 17 "Partnerships": The project involves unique partnership among government and village groups in Nepal, civil society, universities and an inter-governmental organisation. This includes:

Levering UK University expertise to support a growing Nepali NGO with project and policy support;

Engaging with local organisations (i.e. Task Force, district government) to co-produce new knowledge and protocols to improve resource management; and

Accessing IUCN international networks to lever the Nepal example for global impact.

Section 4 - Lead Organisation Summary

Q12. Lead organisation summary

Has your organisation been awarded an IWT Challenge Fund or Darwin Initiative award 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
IWT061	Jacob Phelps	Wildlife in Indonesia: Loss, Damage and Sanctions

No Response	No Response	No Response
No Response	No Response	No Response
No Response	No Response	No Response
No Response	No Response	No Response
No Response	No Response	No Response

Have you provided the requested signed audited/independently examined accounts? If you select "yes" you will be able to upload these. Note that this is not required from Government Agencies.

Yes

Please attach the requested signed audited/independently examined accounts.

 **Lancaster University Annual Accounts 2017-**

18


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 **Lancaster University Annual Accounts 2016-**

17

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Section 5 - Project Partners

Q13. Project partners

Please list all the partners involved (including the Lead Organisation) and explain their roles and responsibilities in the project. Describe the extent of their involvement at all stages, including project development.

This section should illustrate the capacity of partners to be involved in the project, and how local institutions, local communities, and technical specialists are involved as appropriate. Please provide Letters of Support for the Lead Organisation and each partner or explain why this has not been included.

N.B: There is a file upload button at the bottom of this page for the upload of a cover letter (if applicable) and all letters of support.

Lead Organisation name: Lancaster Environment Centre (LEC), Lancaster University

Website address: www.lancaster.ac.uk/lec

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

Role: LEC will provide overall leadership of the project, including coordination; financial management; quality checking of both the research and its strategic use for impact; project monitoring and donor reporting. LEC will coordinate among the partners, be responsible for hosting regular online meetings among the partners. LEC will also provide the technical expertise on IWT and orchidology, as well as oversight of the research design (co-designing research tools, analysis, Outputs 1, 2), and engagement at the science-policy interface (Output 5). The PI will be facilitated via 2 visits to Nepal (mid-Y1 and Y2)to support Greenhood in the field.

Capacity: LEC is a leader in environmental research, with recognized excellence during the 2014 Research Excellence Framework translating its research into impact. It hosts over 80 faculty and offers excellent institutional and administrative support. J.Phelps has specific experience with IWT, including within Nepal. He is one of the worlds foremost authorities on orchid trade; completed his PhD on orchid trade in SE Asia, and is Co-Chair of the IUCN Orchid Specialist Group-Global Trade Programme.

Have you included a Letter of Support from this organisation? (Note: this can be uploaded at the bottom of the page)

Yes

Have you provided a cover letter to address your Stage 1 feedback? (Note: this can be uploaded at the bottom of the page)

Yes

Do you have partners involved in the Project?

Yes

1. Partner Name:

Greenhood Nepal

Website address:

<https://www.greenhood.org.np/>

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

Role: Greenhood will lead on-the-ground activities, including dedicated staff focused on the field research and impact, including community and enforcement training and policy engagement. As part of this, they will also lead relationship-building and coordination at different scales--from plant harvester communities, to local government/protected areas, to central government. Greenhood will also host dedicated staff to support documentation, M&E, and knowledge products development and dissemination in Nepal.

Capacity: Greenhood is a youth led non profit organisation in Nepal recognised for its conservation work engaging community, government and youth, and its research-for-conservation. It includes R. Bashyal, a conservation researcher with particular interest and expertise on orchid trade, who has conducted scoping in the related sites. Lancaster and Greenhood have an established relationship since 2015, including joint-funding from the British Council and collaboration on 2 projects about IWT. In 2018, we also jointly established the Nepal Conservation Research Fellowship, which supports 5 early-career conservationists in a cohort, including some of whom are involved in this proposal.

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

Do you have more than one partner involved in the Project?

Yes

2. Partner Name: The Federation of Community Forestry Users Nepal (FECOFUN)

Website address: <https://fecofun.org.np/>

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

Role: FECOFUN will be Involved in local-level monitoring and resource management plan development. In particular, it is well position to help facilitate access to harvesters to participating in monitoring, as well as to deminter how to best structure the harvester monitoring and new Task Forces (Output 2). They will also support training and increased awareness of rules at the local level and support integration of science into decision-making (Output 4).

Capacity: FECOFUN is a formal network of Forest User Groups (FUGs) from all over Nepal which are organized under the Forest Act-1993. It has experience working with local resource users to balance social and environmental outcomes including for non-timber forest products. . They also have a nation-wide network to offer guidance, and authority to strengthen the role of users in the policy making processes.

Have you included a Letter of Support from this organisation? No

If no, please provide details The letter of support is being processed, and we expect to receive it within the next two weeks.

3. Partner Name: Annapurna Conservation Area Project

Website address: <http://acap.org.np/>

Letter of Support: Role: ACAP will facilitate project activities, especially in identification of potential harvesters and contacts of ward chair of Community Area Management Committee (CAMC) in Kaski District: Ghandruk, Lete, Bhadaure Tamagi villages (Output 2). The ACAP supports local-level monitoring and enforcement of forest resources, and so is important to introducing new enforcement against orchid IWT, and to cooperating with national-level enforcement agencies (Output 3).

Capacity: The ACAP is management authority for the Annapurna Conservation Area. It has 7 unit conservation offices including in Ghandruk (project area). ACAP is conducting a range of projects that benefit local communities and the environment aiming to alleviate poverty integrating agriculture, forestry and tourism.

Have you included a Letter of Support from this organisation? No

If no, please provide details The letter of support is being processed, and we expect to receive it within the next two weeks.

4. Partner Name: University of Oxford

Website address: <http://www.ox.ac.uk>

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

Role: Oxford will provide technical expertise in IWT, orchid trade and research methods via A.Hinsley, who will visit Nepal to support Greenhood. In particular, she will lead on expert elicitation to inform the PVA (Output 2), collaborate on the analysis of trade data and trade dynamics (Output 1), and help inform the design of the harvester monitoring (Output 2). She will be actively involved in all of the analysis and writing, as well as in the international communications such as via CITES (Output 5)

Capacity: Oxford University has a long track record of research in conservation, including wildlife trade and sustainable resources use. Specifically, A.Hinsley has published extensively on IWT, and is one of the worlds foremost authorities on orchid trade and is Co-Chair of the IUCN Orchid Specialist Group-Global Trade Programme. She has also been involved, with Greenhood, on a study of medicinal Taxus trade in Nepal.

Have you included a Letter of Support from this organisation?

Yes

5. Partner Name:

IUCN SSC Orchid Specialist Group - Global Trade Programme

Website address:

<https://globalorchidtrade.wixsite.com/home>

Letter of Support:

Role: The OSG-GTP will lever the project outcomes to raise international awareness about threats to medicinal orchids from trade. This will include messaging and engagement via its experts' networks, orchid blog, social media account, and via the IUCN itself (Output 5). It will also include support accessing experts globally to provide data for the Population Viability analysis (Output 2). The results of this will be of interest to orchidologist and CITES Authorities globally, and IUCN will facilitate this access.

Capacity: This group is the primary body providing scientific expertise to governments, NGOs and CITES Secretariat and Parties on issues related to orchid conservation and trade. This Global Trade Programme is specifically focused on orchid trade, and has a network of related experts able to provide technical support with project design and networks. The group, comprising of orchid researchers, government agents, industry and hobbyists, has particular experience working to raise the profile of orchid trade among NGOs and governments internationally.

Have you included a Letter of Support from this organisation?

Yes

6. Partner Name:	University of Hawaii a Manoa, Botany Dept.
Website address:	http://www.botany.hawaii.edu/
Letter of Support:	<p>Role: Hawaii will provide technical expertise on orchid population dynamics and harvest monitoring via T.Tickin. In particular, she will lead on the PVA analysis (Output 2) and co-design of the harvester monitoring (Output 2). She will be actively involved in all of the research design analysis and writing, as well as in helping to interpret how this can influence management in Nepal (Output 4) and internationally (Output 5).</p> <p>Capacity: University of Hawaii hosts one of the leading Botany Departments in the world. Specifically, Tamara Tickin is Professor of Botany, with a focus on the persistence or decline of plant populations, especially the interactive effects of wild plant harvest. She has specific expertise in indigenous resource management systems, especially non-timber forest products, and is an expert on the population dynamics of epiphytic orchids.</p>

Have you included a Letter of Support from this organisation?	<input checked="" type="radio"/> Yes
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If you require more space to enter details regarding Partners involved in the Project, please use the text field below.

Partner Name:
Website address: <https://www.dof.gov.np/>

Details:
Role: The department includes key stakeholders of the project, including the Nepal CITES Authorities, and district-level bodies involved in forest enforcement and resources management including that of orchids. As such, they will be important to establishing the new Task Forces and engaging with local resource users to use co-produced science to inform decisions (Output 2). They will also draw on our resources to strengthen enforcement in cooperation with other government agencies (Output 3). From DoF we will recruit local, regional and national-level "champions" who can help with project profile and longevity.


Capacity: DoF is the key government authority responsible for managing the forest outside of the protected areas in Nepal--including sites where orchid are harvested. It has offices led by forest officers at the local level in all the districts of Nepal. As mentioned, this includes responsibilities for CITES and enforcement.

Letter: We have strong relationships with people within DoF, notably CITES and DoF district offices. A letter of support has been requested but, as this is a national-level process involving several subsidiary bodies, it is under consideration. Based on our personal discussions and contacts, we fully anticipate they will be supportive.

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


 [Letters of Support Nepal orchid trade](#)


 12/11/2019

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 [Letter Cover letter](#)

 11/11/2019

 18:26:48

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Section 6 - Project Staff

Q14. Key project staff

Please identify the key project personnel on this project, their role and what % of their time they will be working on the project.

Please provide 1 page CVs for these staff or a 1 page job description or Terms of Reference for roles yet to be filled. These should match the names and roles in the budget spreadsheet.

If your team is larger than 12 people please review if they are core staff, or whether you can merge roles (e.g. 'admin and finance support') below, but provide a full table based on this template in the pdf of CVs you provide.

Name (First name, Surname)	Role	% time on project	1 page CV or job description attached?
Jacob Phelps	Project Leader	15	Checked
Reshu Bashyal	Nepal Project Lead, including both research and administration	100	Checked
Kumar Paudel	Researcher & Policy Lead, support with administration and reporting	50	Checked
Amy Hinsley	Technical advisor	5	Checked

Do you require more fields?

Yes

Name (First name, Surname)	Role	% time on project	1 page CV or job description attached?
Tamara Ticktin	Technical advisor	5	Checked
Un-named consultant	Orchid taxonomist	25	Checked
<i>No Response</i>	<i>No Response</i>	0	Unchecked
<i>No Response</i>	<i>No Response</i>	0	Unchecked

No Response	No Response	No Response	Unchecked
No Response	No Response	No Response	Unchecked
No Response	No Response	No Response	Unchecked
No Response	No Response	No Response	Unchecked

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

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

 **CVs Nepal orchid trade**

 12/11/2019

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Have you attached all project staff CVs?

Yes

Section 7 - Species & Project Statement

Q15. Species project is focusing on

Where there are more than 4 species that will benefit from the project's work, please add more fields using the selection option below.

Cypripedium himalaicum (EN)	Gastrochilus calceolaris (CR)
Dendrobium spp. (e.g., D. nobile, subject to previous CITES actions due to over-harvest)	Dactylorhiza hatagirea (Not Red List assessed, but all trade banned in Nepal due to conservation concerns)

Do you require more fields?

Yes

In addition, >100 orchids spp. are reportedly commercially harvested in Nepal, with 24 species especially noted in commercial trade in a series of a recently-published survey of Nepali markets. We will focus on species identified as threatened by trade (above) based on the few IUCN Red List, expert recommendations and the literature. However, we will also gather data and have impact on these other species. Some species will be more viable for legal sustainable trade than others, while some species will be priorities for enforcement efforts due to their conservation status.

No Response

No Response

No Response

No Response

No Response

No Response

No Response

Q16. Problem the project is trying to address

What specific aspect(s) of the illegal trade in wildlife will your project address? Please describe the level of threat to the species concerned.

Please also explain which communities are affected by this issue, and how this aspect of the illegal trade in wildlife relates to poverty or efforts of people and/or states to alleviate poverty.

More than 100 Nepal's orchid species are exploited for Ayurvedic and Chinese medicinal trade to India and China, including *Dactylorhiza hatagirea*--evaluated as among the most vulnerable medicinal plants in Nepal. This includes charismatic and IUCN-evaluated Endangered, Critically Endangered and Vulnerable species. Most other species remain unevaluated, but there are widespread accounts of local/regional expropriations. Due to their biology, many orchids are sensitive to harvest, so reports of increasing trade represents a critical priority.

To date, the problem has been largely ignored; "plant blindness" guides conservation efforts to focus on fauna, and the overwhelming gap in knowledge about orchid exploitation means that few organisations have been compelled to act. Indeed, massive datagaps can paralyse decision-making, whether related to setting local harvest quotas or CITES Non-Detriment Findings.

Nevertheless, orchids' economic importance to rural livelihoods is increasingly recognised: Socio-economically disadvantaged communities and indigenous groups in Nepal's orchid-rich Chitwan-Annapurna Landscape have a high economic dependence on medicinal orchids. As orchid demand increases, it is providing poor communities with new sources of income, while locking them into illegal and unsustainable practices. The Department of Forest responded with a new legal, quota-based harvest system for orchids. This recognised that harvest needs oversight and science-based management, highlighted in CHAL five-year plan. Unfortunately, the system has not yet introduced monitoring or science. In fact, there are very few studies globally on the impacts of wild orchid harvest (none from South/Southeast Asia). Uncertainty and mis-management threaten orchid sustainability, and the livelihoods dependent on them. Indirectly, it endangered biodiversity and deteriorates essential ecosystem services and natural heritage, representing significant opportunity costs of future development and wellbeing (e.g., income, tourism and cultural value).

Section 8 - Method, Beneficiaries & Exit Strategy

Q17. Methodology

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

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

Please make sure you read the Guidance Notes, particularly Section 3, before answering this question.

Historical initiatives: Greenhood reviewed the literature, conducted initial reviews of seizure and CITES data, and met medicinal plant experts and related government agencies. In summary, prior work identifies orchid trade as a priority, but has not collected socio-ecological data, assessed trade dynamics, or taken any action. Globally, the IUCN conducted a 2017 review on orchid trade and identified Ayurvedic and Chinese medicinal trade as a priority, and noted the fundamental lack of understanding about the impacts of harvest on wild orchids.

Methods: We provide the first overview of Nepal's orchid IWT (Output 1), and assess pathways for greater sustainability of legal trade alternative (Outputs 2). We focus on 5 communities within the Chitwan-Annapurna Landscape. These are orchid, bio- and culturally diverse areas where orchid harvest is an important economic activity: Kaski District (Ghandruk, Lete, Bhadaure Tamagi villages), Makwanpur (Deurali village) and Gorkha (Chumchet village). We use this knowledge to catalyse enforcement (Output 4); engage harvesters in improved compliance (Output 4), and to improve the management of legal orchid harvest in Nepal (Output 2) and through CITES internationally (Output 5). We further lever the project to build global awareness about orchid IWT as a conservation priority (Output 5).

- **Characterise trade dynamics:** Most trade data is anecdotal, and there is no study on Ayurvedic or Chinese medicinal orchid trade from South Asia. And although government reports state its economically importance to rural populations, there is no associated data. We will create the first baseline data.
 - Use harvester, trader and key-informant interviews, combined with market and harvest observation, to provide an overview of networks, livelihood value-chains and actor typologies.
 - Analyse CITES and seizure-data records to determine species in legal/illegal trade.
 - Compile Nepal orchid seizure data from diverse government agencies and newspapers.

- **Understand harvest impacts and engage communities:** We know very little about the impacts of harvest on wild orchids. The lack of data on orchid populations means that estimating the impacts of legal and illegal harvest is difficult, whether within Nepal's quota system, or globally for CITES Non-Detriment Findings.

- Pioneer monitoring programme: Nepal hosts the world's only quota-based scheme for harvesting orchid plants, though no populations are actively monitored.

Implement a harvester monitoring scheme to promote rule-following and collect novel biological and trade data--an approach successful for monitoring other species. This will initially involve incentives and independent monitoring/spot-checking, as part of an effort to build a sustaining scheme where resource users are empowered to better manage resources (see details in Activity 2.4).

- Establish a Task Force of key stakeholders (Forest Dept., Community Forest User Group, Ward Chair) to supervise/coordinate implementation, analysis and dissemination, including to inform future quota-setting. This will build the capacity and structure for scheme sustainability.

- Develop a unique Population Viability Analysis (PVA) model. We will use expert-elicitation to characterises

the population dynamics of orchids with different life histories (instead of relying on long-term primary data that is largely unavailable for orchids). Use this to model how different life histories respond under different harvest scenarios;

-Produce a Policy Brief on building sustainable harvest options for orchids, and use this to inform harvest quotas in the 5 communities and through internationally through CITES.

•Enforce against orchid IWT: Engage stakeholders to implement existing to stop illegal orchid harvest and support legal harvest alternatives: We will:

-Hold workshops with national and local government agencies, drawing on the baseline research to raise awareness and build enforcement capacity;

-Produce a Policy Brief, drawing on results, focused on enforcement against IWT, and management of legal harvest;

-Provide training and resource management suggestions to harvesters and Task Forces in 5 communities.

•Lever the Nepal example to strengthen orchid conservation globally, highlight the severity of orchid IWT and counteracting “plant-blindness”,

-Produce editorials, blogs and social-media posts in Nepal, highlighting orchid trade issues to the public.

-Disseminate results internationally, targeting conservation NGOs, CITES Authorities and decision-makers via social media, blogs, and traditional media;

-Make the results accessible via IUCN and CITES Side Event to inform Non-detriment Findings, which are rarely conducted for the >25,000 Appendix II orchids.

Management: Greenhood will provide day-to-day management in Nepal, with a dedicated member of staff leading on fieldwork. Lancaster and Oxford will provide technical oversight of the research and outputs. Lancaster will provide managerial and reporting oversight. We will use the Slack platform to facilitate daily international communications, integrated with GoogleDrive and shared “live” documents to track outputs timelines and responsibilities. We will have monthly team Skype calls, and bi-weekly Lancaster-Greenhood calls.

Q18. Beneficiaries

- **Who will benefit from the work outlined above, and in what ways?**
- **How will this contribute to sustainable development for the reduction of poverty?**
- **How many people are likely to benefit from this intervention e.g. number of households?**
- **How do you intend to monitor the benefits they accrue?**

If your project is working in an Upper Middle Income Country, please explain how benefits will be delivered to people living in poverty in Low and/or Low Middle Income countries.

Include, where possible, information on whether and how there are ways to support the most vulnerable communities, including women.

Demand reduction projects should clearly demonstrate their indirect links to poverty reduction, for example, by identifying impacts in the source countries for the products concerned.

The project will affect rural communities for whom wild orchid harvest is an important income generator, but whose activities are often illegal and, even where they are legally regulated, are not sustainably managed to provide secure long-term livelihoods. This is all the more important because several regional/national government reports express interest in exploring further sustainable commercialisation of orchid resources for rural development.

The project will engage approx. 300 members of Community Forest User Groups in 5 socio-economically disadvantaged indigenous communities in Kaski, Makwanpur and Gorkha Districts. These sites include indigenous and marginalized communities (Magar and Gurung groups), described in national statistics as >30% living below the poverty line. For these individuals, our interventions will monitor and improve orchid resource management to enhance the long-term income potential from using this resource, which otherwise risks collapse. The interventions will also reduce illegal trade that robs from the livelihoods of communities seeking to manage this as a legal resource. For participating individuals, we will provide capacity building about monitoring, training about related rules and market dynamics, and short-term benefits associated with small incentives to participate in data-collection. We will also seek to help empower harvesters so they can better manage their own resources, by engaging them to help set quotas through the co-production of knowledge, and through representation on the new Task Forces.

Importantly, orchid harvest is part of the economy in hundreds of communities across CHAL, most of it illegal. As the government seeks to both formalise and exploit orchid resources to better support rural incomes, this project will provide the data, protocols and mechanisms to improve livelihoods sustainability and legitimacy. This creates new opportunities for increasing local benefits in the orchid value chain, as harvesters currently receive small financial benefits from trade.

To maximise the impact beyond Nepal, the project will share findings widely through CITES Parties and IUCN. This will work support improved management of orchid resources in other countries, including enforcement against illegal trade of threatened species and creating the initial potential for improved management of economically-valuable species, which to date has not been meaningfully explored. This has benefits for people who use and value orchids globally, with implications for one of the most known and charismatic plant families globally that has a range of specific cultural, medicinal and culinary associations globally.

Q19. Gender Equality

All applicants must consider whether and how their project will contribute to reducing inequality between persons of different gender. Explain how your project will collect sex disaggregated data and what impact your project will have in promoting gender equality.

Our scoping shows the women (single women and widows) and people from disadvantaged groups (including children and elderly people) are often involved in orchid harvest/trade. These groups are often socio-economically marginalised and excluded from decision-making; our scoping shows that resource persons and Chair of Forest User Groups are usually men.

We will ensure that women's experiences and perspectives feature in our analysis of trade dynamics, including its contributions to their livelihood strategies (Output 1). We will also engage women in monitoring (Output 2), on the new Task Forces (Output 2) and in local-level workshops (Output 4). This is important to recognise the value of their knowledge and contributions to resource management, while building capacity. However, recognising that participation will take up respondents' time, we will ensure that data collection is reasonable/considerate, and will provide small per-diem to offset these contributions.

We will facilitate women's participation using several strategies: purposive sampling in the trade analysis; active outreach during our scoping (e.g., Activity 2.2), and by creating spaces where women's voices can be heard. We will design workshops to facilitate equitable participation, such as through the use of small groups and, if needed, by dividing groups by gender and along other lines marking disadvantaged groups (e.g., cultural group).. We will also track gender-disaggregated data for all engagements and workshops. We will further highlight women in conservation and research via our training materials and public

communications (Output 4, 5).

Our team is primarily mostly women, including the Nepal project lead. We will also recruit women to join activities in the field and on the research team. Greenhood and Lancaster University have a strong joint track record of supporting young conservation scientists from diverse backgrounds--this is what provided the motivation for this proposal, led in Nepal by R.Bashyal.

Q20. Impact on species in focus

How will the species named in Question 15 benefit from the work outlined above? What do you expect the long-term impact on the species concerned to be?

The target species are under intense pressure from trade--both illegal and legal (but unsustainable/not science-based) trade. In addition, somewhere between 60-100 orchid species are commercially harvested. The conservation status of these other species has not been established, but there are legitimate concerns that trade represents local and regional threat.

Enforcement against illegal orchid trade is still rare, and we will support the first concerted efforts to promote monitoring, enforcement and seizures of large-scale commercial international orchid trade. We will also increase CITES Authority awareness of the large undocumented international orchid trade. These actions will relieve direct illegal trade pressure, which is especially critical to protecting remnant populations of key species listed here, amidst anecdotes of local extirpations in Nepal and the region.

Concurrently, our interventions will support efforts to make the new legal trade more sustainable for the species where that is most viable (e.g., *Dendrobium*). We will evaluate which species are most likely to tolerate harvest, and to identify those where commercial harvest is unlikely to be possible for conservation or livelihoods. We will also help to provide the first-ever global assessments to guide related quota-setting for orchids that best meets social and environmental objectives.

Q21. Pathway to change

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

As the attached TOC diagram depicts, our approach integrates:

New knowledge. This is the first structured conservation project on medicinal orchids in Asia. We will characterise Nepal's medicinal orchid trade (Output 1), and study the sustainability of harvest (Output 2). These fill huge datagaps that currently limit sense of urgency about orchid conservation, and stymie efforts to improve management.

Concern. New knowledge will be levered to challenge "plant blindness" and raise concern about orchid IWT among decision-makers governing local legal trade (Output 2), enforcement in Nepal (Output 3), and the general public in Nepal and globally via strategic communications products (Output 5).

Action. Accurate information and concern are pre-conditions for meaningful action. Wwe will provide data to inform orchid IWT enforcement, alongside science-based quota-setting and CITES NDFs for legal trade. We will also provide the structures and support to help the government and communities to act, via the harvester monitoring scheme, local Task Forces, and trainings to reduce IWT (Outputs 2, 3, 4).

These knowledge, concern, and action outputs will improve enforcement, while supporting legal, more sustainable alternatives. New expectations and governance structures will facilitate long-term impact, seeking to replace illegal/unsustainable, with legal/sustainable alternatives in Nepal and globally.

Q22. Exit Strategy

State how the project will reach a stable and sustainable end point, and explain how the outcomes will be sustained, either through a continuation of activities, funding and support from other sources or because the activities will be mainstreamed in to “business as usual”. Where individuals receive advanced training, for example, what will happen should that individual leave?

Building local capacity: We will provide training on harvest rules and monitoring to all interested harvesters in 5 communities, enabling mutual monitoring and ensuring redundancy of knowledge. The co-production of data and monitoring of their own resources will also help to build local ownership.

Lasting structures: The local Task Forces are being mainstreamed into existing management processes and government agencies who set orchid quotas, helping ensure that our resources and approach outlive the project.

Government relationships and “champions”: Greenhood has strong relationships within the Ministry of Forest and Environment and in country CITES authority, important to ensuring buy-in and identifying “champions” who can help to sustain longer-term efforts locally and nationally.

Public support: The project builds broader public in Nepal and internationally, including nature and orchid enthusiasts and NGOs, to raise awareness and concern about orchid IWT. A broadened base of support will be important to maintaining attention on orchid IWT.

Partner commitment: IUCN-OSG and Greenhood have a demonstrated, long-term commitment to orchid conservation, such that there is a very high likelihood of follow-up funding and projects.

Resource sharing: We will share our findings, notably the PVA findings, via IUCN and CITES internationally, to enable their uptake beyond the project.

if necessary, please provide supporting documentation e.g. maps, diagrams, references etc., as a PDF using the file upload below:

📄 **Theory of Change Nepal Orchid Trade**

📅 11/11/2019

🕒 18:51:04

📄 pdf 134.19 KB

Section 9 - Funding and Budget

Q23. Budget

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

Note that there are different templates for projects requesting over and under £100,000 from the IWT Challenge Fund budget.

- [Budget form for projects under £100,000](#)
- [Budget form for projects over £100,000](#)


Please refer to the [Finance for Darwin/IWT Guidance](#) for more information.

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


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

 [R26 Darwin Budget over 100K FINAL Comp](#)

[leted](#)

 12/11/2019

 12:09:51

 xlsx 62.15 KB

Q24. Funding

Q24a. Is this a new initiative or a development of existing work (funded through any source)?

New Initiative

Please provide details:

This is new work. Greenhood has completed the preliminary scoping of the proposed sites, and has interviewed national-level experts and government agencies.

Q24b. Are you aware of any other individuals/organisations/projects carrying out or applying for funding for similar work?

Yes

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

There is no similar work being proposed. However, our collaborator, A.Hinsley from University of Oxford is also leading a proposal on IWT for Traditional Chinese Medicine (TCM), of which one aspect is sustainable plant use. These two proposals, while both including medicinal plants in Nepal, have fundamental differences--further detailed in our cover letter.

First, the Oxford proposal is a broad project aimed at developing sustainability strategies for multiple species in high-value international markets for TCM, and uses Nepal as a case study for a larger initiative. Second, that project will not deal with the sustainable harvest of orchids, as the species harvested specifically for TCM markets in China are already highly threatened in Nepal and unlikely to be suitable for sustainable wild-harvest. Indeed, these species are likely to be identified during the project as priority species for other interventions to reduce their IWT.

Q25. Co-financing

Are you proposing co-financing?

Yes

Q25a. Secured

Provide details of all funding successfully levered (and identified in the Budget) towards the costs of the project, including any income from other public bodies, private sponsorship, donations, trusts, fees or trading activity, as well as any your own organisation(s) will be committing.

Donor Organisation	Amount	Currency code	Comments
Lancaster Environment Centre, Lancaster University	██████	GBP	Staff time for J.Phelps and related overhead
University of Oxford	██████	GBP	Staff time for A.Hinsley and related overhead, and money to cover the travel expenses for A.Hinsley to take 1 trip to Nepal.
University of Hawaii	██████	USD	Staff time for T.Tickin and related overhead
<i>No Response</i>	0	<i>No Response</i>	<i>No Response</i>

Q25b. Unsecured

Provide details of any co-financing where an application has been submitted, or that you intend applying for during the course of the project. This could include co-financing from the private sector, charitable organisations or other public sector schemes. This should also include any additional funds required where a donor has not yet been identified.

Date applied for	Donor Organisation	Amount	Currency code	Comments
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01
October
2020

Chester Zoo



GBP

The collaborators are establishing a new relationship with Chester Zoo, which has expressed interest in this topic. We plan to apply for funding from them in mid-2020, for use in 2021/22, which would allow scaling-up of activities.

03 July
2019

Synchronicity Earth



GBP

We have a small incoming grant expected from this organisation to the Orchid Specialist Group that will allow us to participate in a future CITES meeting, and will allow us to present results and tools from this project

01
January
2021

Society for
Conservation
Biology,
Association for
Tropical Biology,



GBP

Greenhood will apply for funding to participate in 2 international conferences, presenting papers based on this research. Based on our experience to date, they are highly likely to secure funding from conference organisers needed to attend, as they are young conservationists from an under-represented developing country.

No
Response

No Response

0

No Response

No Response

Do you require more fields?

No

Section 10 - Capital Costs, Value for Money & Ethics

Q26. Outputs of the project and Open Access

Please describe the project's open access plan and detail any specific costs you are seeking from the IWT Challenge Fund to fund this.

All outputs (journal article, policy brief, guidelines) will all be made open access. This will not involve additional costs, as will be published in journals that do not have fees for 1st authors from developing countries, in open access journals, and/or will make articles made available via free pre-prints online (GoogleScholar, SocArXiv). Other documents will be made available online via the Greenhood website and, where appropriate, SoCARxiv.

Datasets will be stored and made publically available in accordance with Lancaster University's data management requirements.

Importantly, we will further ensure that academic outputs are also made accessible in terms that can be more easily understood by non-academic stakeholders in Nepal and internationally. This includes policy-briefs, editorials and social media in ways that make outputs accessible focused to practitioners and the public.

Q27. Financial Risk Management

Explain how you have considered the risks and threats that may be relevant to the success of this project, including the risk of fraud or bribery.

All of our partners are established organisations with strong reputations in the field, experience working on internationally-funded programmes, and with whom we have previously worked. They have Standard Operating Procedures that include a financial management policies. All of formally audited organisations, according to the laws of their own jurisdictions. The risks associated with corruption and financial mismanagement are not anticipated to present a challenge for this project given the track-record of the partners.

Q28. Capital items

If you plan to purchase capital items with IWT 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.

NA

Q29. Value for money

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

We believe this project stands out in this regard. Rather than concentrate resources on UK-based staff and overhead costs (currently only ~████ of the budget), this project prioritises resources for the partner in Nepal—a medium-sized NGO with very low staff and modest overhead costs. We expect this arrangement distinguishes this project in terms of its value-for-money.

Despite the relatively low UK-based costs, the project still levers high-quality inputs from Oxford, Hawaii and Lancaster Universities, as well as significant in-kind contributions from all three universities.

The proposed activities also offer value-for-money because they generate new knowledge that is globally unique--no one has ever collected information of this nature for medicinal orchids, establish harvester reporting for orchids, or conducted PVAs for orchids of this type. It then levers this new data, creating the domestic and international connections, to deliver international impact. In particular, the PVA model (Output 2) will generate unique data that can be used not only for Nepal, but to inform decision-making globally (e.g., CITES Non-Detriment Findings). It also levers the Nepal example to highlight the importance of orchid trade as a globally-important conservation issue that merits greater attention (Output 5).

Q30. Ethics and human rights

Outline your approach to meeting the IWT's key principles for ethics as outlined in the Guidance Notes. Additionally, if there are any human rights and/or international humanitarian law risks in relation to your project?

If there are, have you carried out an assessment of the impact of those risks, and of measures that may be taken in order to mitigate them?

Greenhood Nepal, while focused on conservation, is specifically committed to community-based solutions to conservation. As such, the project partners are equally committed to the human communities affected by the research, and the organisation has an internal ethics protocol.

In addition, all research components will be evaluated by the Lancaster University Faculty of Science and Technology Ethics Review Board. This will include Free Prior and Informed Consent, anonymity and confidentiality considerations. Based on our evaluation to date, there are no specific ethics or safety concerns.

Beyond this, and in compliance with Nepali regulations, the budget include £████ for the Nepal Social Welfare Council, which conducts independent monitoring of projects' impacts on local residents.

Risk assessments will also be conducted for all field-work, to identify actions to mitigate safety concerns facing staff and partners working in the field. This will follow Lancaster University standard practices for international fieldwork.

Q31. Corruption

Explain how you have considered any risk of corruption that may affect the success of this project, and how you plan to manage this.

We do not see this as a particular risk to the project, as we have worked extensively with our partner in Nepal without incident. In addition, funds will be sent to Nepal by Lancaster University in instalments based on delivery of activities and outputs.

Q32. Use of data

If your project involves data collection and/or analysis which identifies individuals (e.g. biometric data, intelligence data), please explain the measures which are in place and/or will be taken to ensure the proper control and use of the data. Please explain the experience of the organisations involved in managing this information in your project.

If any aspect of your project relates to informant network data please also explain what measures are in place to ensure it is properly controlled.

We will describe trade networks but will not be collecting personally identifying data or conducting intelligence data, surveillance or informant. In addition, all data collection will go through UK university ethics review, ensuring high standards of data protection.

Q33. Safeguarding

Projects funded through the IWT Challenge Fund must fully protect vulnerable people all of the time, wherever they work. In order to provide assurance of this, projects are required to have appropriate safeguarding policies in place. Please confirm the lead organisation has the following policies in place and that these can be available on request:

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

Section 11 - Logical Framework

Q34. Logical Framework

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

The Outcome statement in your logframe should be the same as the Outcome statement given in Question 8.

Impact:

Reduction in illegal orchid trade in Nepal, replaced by science-based sustainable alternatives, serving as an innovative model for global action to end orchid IWT.

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
------------------------	------------------------------	------------------------------	------------------------------

Outcome:

Nepal government and CHAL communities enforce against illegal orchid trade, and initiate a science-based legal alternative, raising global awareness about orchid IWT

0.1 Government authorities in CHAL (local authorities n=3, regional authorities, n=2) include actionable steps in support of orchid conservation in their annual or 5yr plans (baseline=mentioned in The Strategy and Action Plan 2016-25 but not operationalised via plans; by end Y3)

0.2 Priority boundary organisations are engaged with project resources, including government authorities in CHAL (n=30), conservation organisations (n=25) and local forest office representatives (n=40), CITES authorities (n=10) (baseline= very few orchid focused resources exist for Nepal and stakeholders do not prioritize orchid/plant conservation, end-Y2)

0.3 30% increase enforcement actions in CHAL resulting in seizures against large-scale illegal orchid trade (baseline=13 known orchid seizures reported in national newspapers since 2009, Government records exist but are not yet compiled, and this is an aim for Output 1; records will be compiled since 2010, and specifically for Y2 and

0.1 Official planning documents from the local government and local conservation agency (CHAL authority)
0.1 Evidence of exchange (e.g., emails) with government authorities

0.2 List of stakeholder engagements impact log reporting on quality/status of engagement (see M&E)
0.2 Meeting documentation and photographs

0.3 Seizure reports from local forest offices, Central Investigation Bureau, CITES Authority and Dept. of Forests.

0.4 Summary of meetings with CITES Authorities
0.4 Records of the Nepal CITES Authority
0.4 WCMC CITES Trade Database evidence of increase in CITES permits

0.5 List of participants, gender disaggregated
0.5 Photos of community engagement programmes
0.5 Before-after test with 50 random harvesters to evaluate knowledge and perceptions of harvesters (baseline=pre-test end of Y1, post-test end Y2)

Local government agencies are receptive to our resources and are willing to make this a priority. Mitigation: Active relationship-building, including consultation that runs throughout the project.

Enforcement agencies prioritise large-scale commercial traders (i.e. "big fish"), over small-scale harvesters/traders that are often most subject to IWT enforcement. Mitigation: Clear communication with government agencies about enforcement priorities and need to reduce undesirable/inequitable social impacts of conservation enforcement.

We assume 30% increase is modest because few enforcement actions/seizures are reported in the media or in our scoping interviews. However, we will not know the exact numbers until after we compile government data (see Output 1)

Government agencies (e.g., CITES Authority) are resourced and competent to implement their national legislation and international

Y3).

0.4 Nepal CITES Authority (part of the Dept of Forests) includes an orchid-related action into its annual plan related to meeting its commitments to trade in CITES App. II-listed orchids (e.g., training, increased enforcement) (baseline=orchids are not currently a priority, and CITES permits are not being allocated, as indicated by only 7 CITES permits issued in 2015 and 2016 for 17,617kg of *Dendrobium* spp.; end Y3)

0.5 Target communities (n=300 people, across 5 targeted communities) demonstrate improved awareness about the importance of orchids and rules governing orchid harvest and trade (baseline=0, end Y2)

commitments. For example, most international trade in CITES-listed orchids is not currently accompanied by CITES permits. Mitigation: Engagement with government, development of highly-accessible resources, and public communication to raise awareness about the importance of IWT to plants.

Harvesters are willing to participate in our activities, including self-reporting and workshops. Mitigation: Active engagement of communities and selection of several communities to test which groups are most receptive. We will also engage local conservation agencies and concession-holders, who regulate the legal orchid trade.

Output 1:

Nepal and CHAL government and communities have the baseline trade dynamics data needed to improve enforcement against orchid IWT, and guide environmental and social policy on legal orchid trade.

1.1 First report on Nepal orchid trade dynamics, including list of orchid species in commercial trade, trade chain map, compiled data on seizure and trade since 2000, policy review, and characterisation of actors and their livelihood reliance on orchids (baseline=0, end Y2)

1.1 Copy of journal publication, available open-access on Greenhood website and SocArXiv

We will be able to identify species in trade, which is often challenging when they are out of bloom. Mitigation: Involvement of international and domestic orchid experts.

We will be able to access receptive participants across the trade chain, including where it is cryptic and illegal. Mitigation: Involvement of people experienced with IWT research and relationship building within orchid networks that we are already establishing.

Output 2:

Improved understanding of how trade impacts wild orchid populations, including implementation of a pioneer harvester reporting scheme, to improve the management of legal harvest

2.1 Protocol and resources to facilitate and standardise harvester self-reporting of medicinal orchids. This includes supporting resources developed (e.g., simplified explanation of protocol, simplified species identification guide) to make protocol accessible to harvesters and local government authorities (baseline=0 globally known for monitoring wild orchid harvest; Y1)

2.2 Harvesters (n=>100) across 5 CHAL communities involved in 3 days of training/discussion on harvest rules and monitoring techniques

2.3 Harvester self-reporting operationalised in 5 CHAL harvester communities in (Kaski District (n=3), Makwanpur (n=1), Gorkha (n=1) for 4 months (baseline=0 globally; early Y2). This will involve

2.1 Copy of one protocol document on Greenhood and OSG websites
2.1 One powerpoint presentation in English and Nepali explaining protocol available on Greenhood and OSG websites

2.1 Training material available on Greenhood and OSG websites

2.2. Log of participants, gender disaggregated
2.2 Photo of workshops

2.3 Task Force established in cooperation with local harvesters and government, including appointment of an independent local monitor to oversee data collection.

2.2. Task Force meeting reports on data collection and use of data to inform decision-making

2.3 Agreements with, and log of participating harvester.

2.3 New database of harvester-collecte data (species lists, volumes, age classes, harvest methods, collecting effort) (Y2)

2.3 Tracking document of number of successful data submissions from each participating harvester

2.3 Rate of concurrence in data between independent monitor and harvester data

There is no known monitoring programme implemented for wild orchid harvest anywhere in the world. As such, there will be technical challenges associated with its set-up, including with harvesters' ability to reliably identify the species (even if using their own local taxonomy). Mitigation: Involvement of orchid experts and engagement with IUCN colleagues who have established similar schemes for other taxa (e.g., trees, crocodiles, pythons).

Nepal recently implemented a new CITES law that unintentionally banned harvest of all CITES-listed species. On paper, this technically ended all legal harvest of orchids. However, we know that it is ongoing as usual. In addition, there are active efforts to revise the law to re-allow harvest of Appendix II species, which we fully expect will have happened by project start. In the unlikely event that it is not approved by then, our data collection remains fully relevant because trade is still ongoing.

Requires local willingness to participate in monitoring, including support from local conservation authorities,

	2.4 Dataset of interviews	concession holders and harvesters. Mitigation: Clear communication about the potential benefits and importance of the project. High-level buy-in to the project to help ensure local government agents are receptive.
	2.4 Report evaluating the design of the scheme, including from harvesters' perspective	
2.4 Interview-based feedback from participants (n= 30) to evaluate scheme design, perceptions of monitoring and willingness to engage long-term (end Y2)	2.4 New dataset of harvester-reported information	In the absence of published ecological data on most of the harvested species, we are relying on expert-based elicitation to help populate the PVA model, which assume we will be able to access. Mitigation: Access to quality experts, including via the IUCN.
	2.4 Copy of report, available open-access and on the Greenhood website	
2.4 Analysis and report on orchid harvest dynamics, based on community-based reporting data to help inform sustainability of legal harvest (see Output 2; baseline=0 such analyses globally, end Y2)	2.5 Copy of journal publication, available open-access and on the Greenhood and OSG websites and SocArXiv	
2.5 Novel analysis on the sustainability of orchid harvest based on an expert-informed Population Viability Analysis, to inform harvest impacts for multiple species (baseline=approx.16 previous studies on orchid population dynamics (all species, globally) and only 1 study that seeks to make broader conclusions across species and time, end Y2)		

Output 3:

Key central and local government agencies empowered, and demonstrate strengthened enforcement against illegal commercial trade of medicinal orchids

3.1 Policy brief, "Combating illegal orchid trade in Nepal" (baseline=no such document available for the region; available online and 50 hardcopies distributed to key national and CHAL agencies and civil society groups by mid Y3)

3.2 Policy brief, "Monitoring and strengthening sustainable legal orchid harvest to reduce IWT" (baseline=0, 50 copies distributed to key national and CHAL government agencies, civil society and academe, Y3)

3.3 Workshops (n=2) (one at the end of Y1 and other Y3) with central government in Kathmandu, with the participation of representatives from key government and civil society groups and national orchidologists to discuss the status of illegal orchid trade in Nepal (n= 35/workshop)

3.4 Key enforcement officials in CHAL and at national-level identified as potential "champions" (n=30) and directly engaged via courtesy calls with knowledge products (see indicators 1.2, 3.3) (baseline=0, Y3).

3.1 Policy brief copy available online at Greenhood and OSG websites

3.1 List of people/groups to which brief was distributed and letters confirming receipt

3.2 Policy brief copy available online at Greenhood and OSG website

3.2 List of people/groups to which brief was distributed and letters confirming receipt

3.3 Lists of participants, gender disaggregated

3.3 Photographs of events

3.3 Workshop summary report

3.4 List of meetings across the 2 years

3.4 Impact log (see M&E)

3.4 List of people/groups to which brief was distributed and letters confirming receipt

3.5 Division Forest Offices and Park Authority, Central Intelligence Bureau reports of seizures and enforcement actions.

Representatives from concerned agencies are willing to participate in the workshop and take this agenda seriously. Mitigation: Networking with high-level government agents to demonstrate its existing buy-in. Preparing compelling explanations for its importance to their roles. Further, creating public awareness/expectations that government responds to orchid conservation threats.

CIB and local authorities are happy to support us and share the reports. Mitigation: We have existing collaboration with them and they have agreed to provide us with the required data.

3.5 30% increase enforcement actions in CHAL resulting in seizures against large-scale illegal orchid trade (baseline=13 known orchid seizures reported in national newspapers since 2009, government records not yet compiled but interviews suggest these are only occasional; Y2, Y3).

<p>Output 4: Wild orchid harvesters and traders understand rules governing orchid harvest and trade for improved legal resource management and reduced IWT</p>	<p>4.1 Workshop conducted in 5 harvester communities/Community Forest User Groups in CHAL (n=300 participants) to highlight findings, collect feedback, share outcomes and present a streamlined explanation of harvest and IWT rules (baseline=0, end Y2)</p>	<p>4.1 Lists of participants, gender disaggregated 4.1 Photographs of events</p>	<p>The broader community continues to recognize the importance of illegal orchid trade</p>
	<p>4.2 Harvesters demonstrate improved understanding of rules (guidelines, regulations, processes, penalties, Y2)</p>	<p>4.2 Questionnaire with local harvesters (n=50) to evaluate knowledge of existing rules and regulations</p>	
	<p>4.3 Harvesters are represented on the new monitoring Task Force (Y2)</p>	<p>4.3 Task Force membership list, gender disaggregated 4.3 Photos of Task Force</p>	
		<p>4.4 Reports from the 5 Task Force meetings 4.4 Reports from Department of Forest officials in the 5 communities</p>	
	<p>4.4 New data (Output 2) are used to inform harvest rules and quota setting in the 5 target communities</p>		

Output 5:

Increased awareness of the threats IWT poses to plants/orchids among conservationists and key decision-makers globally

5.1 Global dissemination of results, sharing anecdotes/findings about orchid trade via Facebook and Twitter (n=80), targeting conservation influencers in civil society and governance to build broader support for orchid conservation (Y1, Y2)

5.2 Editorials on orchid trade and conservation in leading Nepal newspapers (baseline=1, Y2=2 editorials, Y3=2 editorials)

5.3 Blogs (n=5) on orchid trade for international platforms, including for IUCN-SSC website, Sustainable Use and Livelihoods Specialist Group, Orchid Specialist Group, The Conversation (Y3)

5.4 Sharing the results at an international conservation conferences, (n=2Y2, Y3)

5.5 Results (e.g., Policy Brief, PVA analysis) shared via the Orchid IUCN-SSC, including CITES Secretariat, Orchid Specialist Group, Sustainable Use and Livelihoods Group, Medicinal Plants Specialist Group (Y3)

5.6 Side-Event at CITES Plants Committee on medicinal orchid trade (Y2/Y3 - depending when meeting is scheduled)

5.1 Analysis of Twitter and Facebook metrics (views, engagements)

5.1 List of target influencers engaged

5.2 Copies/links of publications

5.3 Copies/links of publications

5.4 Conference abstracts

5.5 Email copies

Provided one of the Greenhood project team members can receive a scholarship to attend such an event during the project period.
Mitigation: Previous experience suggests this very is likely
We have external funding to attend CITES meetings to share outputs, which is nearly confirmed

5.7 Courtesy calls to key conservation NGOs in Nepal to highlight new opportunities for orchid-related projects
(baseline=0, Y2=2, Y3=3)

Do you require more Output fields?

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

No

Activities

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

Each activity should start on a new line and be no more than approximately 25 words.

Output 1: Baseline market chain and enforcement analysis of medicinal orchids in Nepal

1.1 Analyse CITES orchid trade data for Nepal since 2000

1.2 Compile data about orchid seizures since 2000 from a newspaper review and enforcement agencies (Central Investigation Bureau, Department of National Parks and Wildlife Conservation, Department of Forest, Division Forest Offices, Annapurna Conservation Area Project) and prepare analysis

1.3 Scoping of 5 villages across 3 districts

1.4 Develop interview and market survey instrument

1.5 Conduct field observations and interviews in 3 districts and Kathmandu on trade dynamics, and also establish contacts with harvesters (see Activity 2.1)

1.6 Analyse and integrate primary and secondary data into a report (to inform the policy brief mentioned in Output 3)

1.7 Prepare journal publication

Output 2: Improved understanding of how trade impacts wild orchid populations, including implementation of a pioneer harvester reporting scheme

2.1 Obtain formal research permissions from Dept. Plant Resources and the 3 Districts, and informal permission from local authority in 5 villages

2.2 Meet with and recruit harvesters to participate in the project in 5 villages (See Activity 1.5) and conduct discussions about the viability of different types of data collection (see Activity 2.4)

2.3 Formally recruit participants, including ethics procedures

2.4 Develop a protocol for orchid harvester monitoring. This will be developed in cooperation with researchers and IUCN experts to determine what data variables are needed and appropriate proxies.

Importantly, we will also focus on what is feasible to collect, based on local realities (also determined as part of Activity 2.2). Data will focus on harvest data, notably harvested volumes, species targeted, type of harvest (e.g., whole plant, technologies used, etc), age class of harvested individuals, proportion of population harvested, harvester effort in terms of time and distance, locations, economic value, and presence of other harvester activity). For target species, it will also consider very basic biological data about

the wild orchid populations harvested, such as number of individuals at sites and age classes.

- 2.5 Develop and test training materials and resources for harvesters participating in the monitoring, accounting for local taxonomy and challenges of identification
- 2.6 Training workshops (3 days/village) for participants in the 5 villages, including knowledge pre-tests, about orchid harvest rules, identification, and methods for self-reporting data
- 2.7 Establish Task Forces in the 5 villages, including appointment of an independent monitor to oversee the harvester data collection
- 2.8 Harvesters self-collect data through their normal peak-season for harvest, with regular (e.g., weekly) check-ins and engagement with Task Force's independent monitor to submit their data.
- 2.9 Ongoing support/coordinating with the 5 Task Forces on monitoring and data collection from harvesters
- 2.10 Conduct harvester monitoring data entry and analysis
- 2.11 Prepare report based on harvester data
- 2.12 Develop protocol for eliciting expert data for PVA analysis
- 2.13 Gather data for PVA from orchid experts internationally
- 2.14 Conduct PVA analysis and writing results of PVA

Output 3: Key central and local government agencies empowered, and demonstrate strengthened enforcement against illegal commercial trade of medicinal orchids

- 3.1 Prepare and publish policy brief, "Combating illegal orchid trade in Nepal"
- 3.2 "Prepare and publish policy brief, "Monitoring and strengthening sustainable legal orchid harvest to reduce IWT"
- 3.3 Host national initiation workshop with national level stakeholders to highlight enforcement needs against orchid IWT, and also discuss project design and attract support and exist strategy
- 3.4 Host final workshop with national stakeholders to share results and discuss exit strategy
- 3.5 Recruit "champions" in CHAL and nationally during various meetings/workshops, keeping records of likely supportive candidates and keeping in touch with them via meetings and email updates.
- 3.6 Monitor government enforcement data/seizure records throughout project the project duration

Output 4: Wild orchid harvesters and traders understand rules governing orchid harvest and trade

- 4.1 Participatory workshops in 5 villages with harvesters to share outcomes of monitoring and PVA, and their implications for monitoring and harvest
- 4.2 Conduct post-tests with harvesters to evaluate changes in knowledge and reported behaviour
- 4.3 Meetings with 5 Task Forces and Department of Forests to use new data (PVA, harvester data, post-tests) to inform quota-setting

Output 5: Increased awareness of the threats IWT poses to plants/ orchids among conservationists globally

- 5.1 Maintain active Facebook and Twitter presence, highlighting project progress including sharing knowledge products
- 5.2 Publish 4 blogs (e.g., on PVA, harvest, enforcement data analysis, trade data analysis)
- 5.3 Publish 4 editorials in Nepal (e.g., on PVA, harvest, enforcement data analysis, trade data analysis)
- 5.4 Participate in international conferences to highlight outcomes (target conferences: SCB, ICCB, National sharing platforms)
- 5.5 Dissemination of results (reports, publications) via IUCN
- 5.6 Conduct courtesy calls to Nepal NGOs to share results
- 5.7 Side-event at CITES Meeting (Plants or Standing Committee, dates not yet set)

Section 12 - Implementation Timetable

Q35. Provide a project implementation timetable that shows the key milestones in project activities

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

Implementation Timetable Template

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

📄 **IWT R6 - Stage 2 - Implementation Timetab**

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Section 13 - M&E and FCO notification

Q36. Monitoring and evaluation (M&E) plan

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

IWT Challenge Fund projects will need 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 for Darwin/IWT](#)).

M&E will be managed by Greenhood with LEC oversight, and is built into the project, tracking progress towards outputs and the outcome, collecting evidence, and allowing us to adapt our strategy across the 2 years.

Monitoring linked to adaptive strategies include tracking seizure data and Task Force reports to detect changes in effort/buy-in, and of social media metrics (e.g., number of interactions) to adapt our international communication strategy. We have specific monitoring of harvester engagement, recognise associated challenges and the need for adaptive responses. Notably, we will collect pre-intervention feedback about the design of monitoring to ensure it needs local needs, track harvester data input to check that it is working, and post-intervention interviews to reflect on scheme design. We will also conduct pre/post-intervention interviews to monitor changes in knowledge and perceptions, and inform remaining activities.

- Indicator tracking via "live" documents: M&E will be based around shared "live" online documents, a strategy currently used by the WILDS project, to facilitate shared engagement in monitoring across partners. This will track activities, corresponding indicators, identifying the partner leading each. These will be updated monthly and allow partners to enter their status. This will allow us to track outputs, anticipate and manage any delays, with indicators tracked using a colour coding system (completed, on-track,

anticipated delay or problem).

- Internal communication about monitoring: Daily interactions will run via WhatsApp mobile messaging. This serves the function of community-building and regular communication by facilitating quick, very regular exchanges among across the international team. We have used this previously together and find it is very effective for tracking daily progress. Issues requiring discussion will be referred to Slack.com, an online platform that facilitates “themed” discussions. Each output will have its own “theme” and we will be able to hold and organise related discussions regarding indicator status, challenges, suggestions, etc.
- Impact log: Many outputs rely on strong stakeholder involvement, which we will track via an impact log. This will track type of engagement, status of relationship, whether the actor is receptive, a likely “influencer”, and whether there is evidence of impact. This approach will help identify policy windows and national and local “champions” who can help with uptake and longevity.
- Final evaluation: Led by Lancaster and Greenhood, a final evaluation will track outcome indicators, some of which are quantitative, as well as a qualitative, reflexive final evaluation whose primary objective will be to describe contributions towards the longer-term impact of the project, challenges faced and how they were mitigated, and necessary next-steps.

M&E cost are included within the time for R.Bashyal (2days/month [48] for monitoring, managing impact logs and tracking deliverables, and 14 days for Y1 and Y2 reports), with support from K.Paudel (½ day/month [12 days], 5 days for reports) and J.Phelps (approx. ½ day/month [12 days], 5 days for the reports). M&E related discussion via Slack.com will be mainstreamed into the project itself.

Total project budget for M&E in GBP (this may include Staff, Travel and Subsistence costs)	£ [REDACTED]
Number of days planned for M&E	96
Percentage of total project budget set aside for M&E (%)	[REDACTED]

Q37. FCO Notifications

Please state whether there are sensitivities that the Foreign and Commonwealth Office will need to be aware of should they want to publicise the project's success in the IWT Challenge Fund competition in the host country.

No

Please indicate whether you have contacted your Foreign Ministry or the local embassy or High Commission (or equivalent) directly to discuss security issues (see [Guidance Notes](#)) and attach details of any advice you have received from them.

No

If no, why not?

The UN Embassy in Nepal is currently in a leadership transition, but we will establish contact once the new Ambassador is in place. Lancaster and Greenhood have previously held a good relationship with the Embassy.

We have experience working in Nepal and there are not specific safety concerns.

Section 14 - Certification

Q38. Certification

On behalf of the

trustees

of

Lancaster University

I apply for a grant of





£132,114.90

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

Checked

Name	Yvonne Fox
Position in the organisation	Associate Director of Research Services
Signature (please upload e-signature)	 <u>Yvonne Fox Signature</u>  12/11/2019  11:10:16  jpg 4.31 KB
Date	12 November 2019

Section 15 - Submission Checklist

Checklist for submission

	Check
I have read the Guidance, including "Guidance for Applicants" 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 my project.	Checked
I have provided my budget based on UK government financial years i.e. 1 April – 31 March and in GBP.	Checked
I have checked that the budget is complete, correctly adds up and I have included the correct final total at the start page of the application.	Checked
The application has been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).	Checked
I have included a 1 page CV or job description for all key project personnel identified at Question 14, including the Project Leader, or provided an explanation of why not.	Checked
I have included a letter of support from the Lead Organisation and main partner organisation(s) identified at Question 13, or an explanation as to why not.	Checked
I have included a cover letter from the Lead Organisation, outlining how any feedback received at Stage 1 has been addressed where relevant.	Checked
I have been in contact with the FCO in the project country/ies and have included any evidence of this. If not, I have provided an explanation of why not.	Checked
I have included a signed copy of the last 2 annual report and accounts for the Lead Organisation.	Checked
I have checked the IWT website on GOV.UK immediately prior to submission to ensure there are no late updates.	Checked
I have read and understood the Privacy Notice on GOV.UK	Checked

We would like to keep in touch!

Please check this box if you would be happy for the lead applicant 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 IWT Challenge Fund and our sister grant scheme, the Darwin Initiative. We also provide occasional updates on other UK Government activities related to the illegal wildlife trade and share our quarterly project newsletter. You are free to unsubscribe at any time.

Checked

Data protection and use of personal data

Information supplied in this application form, including personal data, will be used by Defra as set out in the latest copy of the Privacy Notice for Darwin, Darwin Plus and the Illegal Wildlife Trade Challenge Fund available [here](#). This Privacy Notice must be provided to all individuals whose personal data is supplied in the application form. Some information, but not personal data, may be used when publicising the Darwin Initiative including project details (usually title, lead organisation, location, and total grant value) on the GOV.UK and other websites.

Information relating to the project or its results may also be released on request, including under the 2004 Environmental Information Regulations and the Freedom of Information Act 2000. However, Defra will not permit any unwarranted breach of confidentiality nor will we

act in contravention of our obligations under the General Data Protection Regulation (Regulation (EU) 2016/679).