Applicant: **Mistry, Jay** Organisation: **Royal Holloway University of London** Funding Sought: **£30,728.00**

CV19RR\1039

Covid-19 impacts on Indigenous food sovereignty, livelihoods and biodiversity, Guyana

This project will assess the impacts of Covid-19 on Indigenous traditional farming. Using farm surveys, participatory video and satellite radar analysis, it aims to investigate short term biodiversity, traditional knowledge, and livelihood impacts of Covid-related resurgence in traditional forest-based rotational farming, and collate lessons learnt to sustain the benefits and mitigate the deleterious effects in the long-term. Findings will inform policies incentivising Indigenous food sovereignty, biodiversity conservation and resilience to escalating disruptive events, from pandemics to climate change weather extremes.

PRIMARY APPLICANT DETAILS

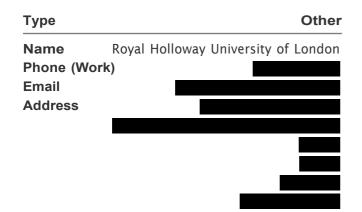


Section 1 - Contact Details

PRIMARY APPLICANT DETAILS



GMS ORGANISATION



Section 2 - Project Title & Previous Applications

Q3. Project Title:

Covid-19 impacts on Indigenous food sovereignty, livelihoods and biodiversity, Guyana

Q4. Existing project

Q4a. Does your organisation have an existing (or recently finished) project under either Darwin Initiative, Darwin Plus or Illegal Wildlife Trade Challenge Fund?

 \Box Yes

If yes, please list the project reference and title of relevant projects (e.g. 25-001, DPLUS090, IWT099).

Reference of current/recent project:

Title of current/recent project:

Q4b. Is this proposal directly relevant to one of the projects listed above?

🗆 Yes

If yes, please list the relevant project reference and title.

24-026 Integrating Traditional Knowledge into National Policy and Practice Guyana

Section 3 - Countries, Dates & Budget Summary

Q5. Which Fund's objectives will your project most directly address? (please only select one)

Darwin Initiative

Q6. Country(ies)

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

Country 1	Guyana	Country 2	No Response
Country 3	No Response	Country 4	No Response

Do you require more fields?

 \square No

Q7. Project dates

Start Date:	End date:
01 January 2021	31 March 2021

Q8. Budget summary

Darwin/IWT Funding Request

Total request 2020/21:

30,728.00

Please note all spending <u>must</u> fall between 1st January 2021 - 31st March 2021

Q8a. If any matched funding arrangements are proposed, please detail them here.

Staff costs including Jay Mistry (RHUL, £	Deirdre Jafferally (MoAA, £	Sean Mendonca (current
project, £ Rebecca Xavier (NRDDB, £	Andrea Berardi (CC, £	and overheads from NRDDB

Section 4 - Project Outcome and Summary

Q9. Outcome

What is the expected Outcome of this project?

Enhanced Indigenous food sovereignty and agroecological knowledge that sustains livelihoods, culture and biodiversity by establishing an evidence base on the impacts of Covid-19 on Indigenous farming systems and forests.

Q10. 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.

This project will assess the impacts of Covid-19 on Indigenous traditional farming. Using farm surveys, participatory video and satellite radar analysis, it aims to investigate short term biodiversity, traditional knowledge, and livelihood impacts of Covid-related resurgence in traditional forest-based rotational farming, and collate lessons learnt to sustain the benefits and mitigate the deleterious effects in the long-term. Findings will inform policies incentivising Indigenous food sovereignty, biodiversity conservation and resilience to escalating disruptive events, from pandemics to climate change weather extremes.

Section 5 - Project Partners

Q11. Project partners

Please list all the partners involved (including the Lead Organisation) and provide a summary of their roles. Please upload letters, emails or other confirmation of support from any new partners.

Lead Organisation name:	Royal Holloway University of London (RHUL)
Other partners involved:	North Rupununi District Development Board, Guyana (NRDDB) Ministry of Amerindian Affairs, Guyana (MoAA) Cobra Collective CIC, UK (CC)

Summary of roles and responsibilities in project:	As a current and experienced Project Leader, Jay Mistry (RHUL) will coordinate and oversee delivery of the project outputs to time and budget. She will bring her expertise in the natural and social sciences to the project, while also providing technical support and academic guidance. She will oversee the monitoring and evaluation of the project and be responsible for liaising and reporting to the Darwin Initiative. Rebecca Xavier (NRDDB), community researcher co-ordinator, will lead on community participation and engagement, participatory video, and ensure that all findings of the project are shared with their constituents. Deirdre Jafferally (MoAA) will oversee the field data collection, including permissions, logistics and communications. Javier Ruiz-Ramos and Andrea Berardi (CC) will undertake the satellite radar analysis of forest cover to evaluate deforestation impacts. Sean Mendonca on the 24-026 Darwin project will oversee the video-mediated dialogue and engagement with relevant stakeholders in Georgetown.
If you have not provided evidence of support from the Lead Organisation or partners above, please explain why:	The Lead organisation and partners above are all currently working together on the 24-026 Darwin project.

Please provide a combined PDF of letters of support from the lead organisation and partner(s) as relevant.

No Response

Section 6 - Project Staff

Q12. Project staff

Please identify the core staff on this project, their role and what % of their time they will be working on the project. Further information on who should be classified as core staff can be found in the guidance. Please provide a 1 page CV for the proposed Project Leader and any co-Project Leader if relevant.

Name (First name, surname)	Role	% time on project	1 page CV attached?
Jay Mistry	Project Leader	10	Checked
Deirdre Jafferally	In-country coordinator (MoAA)	10	Unchecked

Sean Mendonca	Video-mediated dialogue (current project, EPA)	5
Rebecca Xavier	Community engagement coordinator (NRDDB)	10

Do you require more fields?

 \Box Yes

Name (First name, surname)	Role	% time on project
Bernie Robertson	Participatory video production (NRDDB)	50
6 Community researchers	Participatory video and interviews (NRDDB)	100
20 monitoring community researchers	Collecting farm survey data (NRDDB)	17
Javier Ruiz-Ramos	Remote sensing analysis (CC)	18
Andrea Berardi	Remote sensing analysis support (CC)	5
No Response	No Response	0
No Response	No Response	0
No Response	No Response	0

Please provide 1 page CVs for the proposed Project Leader and any co-Project Leader listed above as a combined PDF.

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

<u>CV Jay Mistry 291020</u>
 29/10/2020
 16:11:34
 pdf 427.71 KB

Section 7 - Problem, Method and Change Expected

Q13. Problem the project is trying to address

Please describe the problem your project is trying to address in terms of Covid-19 and its impact on biodiversity or IWT and sustainable livelihoods. For example, what are the drivers of loss of biodiversity that the project will attempt to address? Why are they relevant, for whom? How did you

identify these problems? Please cite the evidence you are using to support your assessment of the problem (references can be listed in an additional attached PDF document).

Our Darwin project (Ref. 24-026) highlights the importance of Indigenous rotational farming for culture, livelihoods and biodiversity. Compared to industrial agriculture, this traditional form of agriculture within forest environments improves soil water and nutrient retention, reduces erosion and degradation, increases agrobiodiversity, reduces carbon emissions, and enables carbon sequestration through biochar. At the same time, traditional food systems reinforce collectiveness, Indigenous knowledge and the adaptive capacity of local people to experiment and solve their own problems.

The Covid-19 pandemic has resulted in many Indigenous community members losing paid work. With little government support, communities have turned to traditional farming to survive. This presents livelihood and biodiversity opportunities and challenges.

A more localised food system may promote agrobiodiversity, as families are exchanging and planting traditional varieties. Greater traditional knowledge transmission on soil and land type, climate, pest control, and crop varieties, especially to young people who would normally be in school, is also incentivised. On the other hand, with greater areas of forest opened for farming, there is a potential for greater long-term impact on forest cover and biodiversity, especially if non-traditional practices are incentivised, such as mechanized agriculture using artificial pesticides and fertilizers. Communities have a strong influence on what type of agriculture is championed and how and if the forest recovers after farming, including the potential for promoting forest recovery with species that have benefits to both people and wildlife, such as nut and fruit bearing species.

Our project therefore aims to address the following questions:

- What are the short-term biodiversity, traditional knowledge, and livelihood impacts of this Covid-related resurgence in Indigenous forest-based rotational farming?

- What lessons can be learnt to sustain the benefits and mitigate the disadvantages in the long-term?

Q14. Methodology

Describe the methods and approach you will use to achieve your intended Outcome. **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.
- If relevant, how this project links to an ongoing Darwin/IWT project.
- How you will undertake the work (materials and methods).
- How you will manage the work (roles and responsibilities, project management tools etc.).

Projects should also consider how best they can address inequality, especially gender inequality, as per the existing guidance for each fund.

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

In this project, we will focus on the North Rupununi, the region represented by the NRDDB and where we have long-term community relationships.

1) We will use an established household survey about farming that was developed by the NRDDB as part of a Community Monitoring, Reporting and Verification (CMRV) REDD+ process. The survey contains questions on farm beneficiaries, size, types, patterns, crops, economics, threats and challenges, importance to

families and communities. This survey will be carried out by already trained monitoring researchers in 10 villages, and then compared to data collected over the last eight years.

2) We will use semi-structured interviews and participatory video to explore the positive and negative impacts of Covid-19 on livelihoods and biodiversity. There will be a particular focus on subsistence livelihoods, paid work and on the transmission of traditional knowledge (type, modes, who involved). This will be carried out in 3 villages by community researchers trained through our current Darwin project. 3) We will use satellite radar change detection analyses to estimate the type and extent of deforestation and forest degradation as a result of increased farming. Due to high cloud cover, optical remote sensing is not reliable. Synthetic Aperture Radar (SAR) imagery is the best alternative to monitor forest cover changes in our region of study. We will make use of the freely available ESA-Sentinel-1 archive to analyse the land cover changes in the North Rupununi over the past four years. A novel forest change detection approach developed by CC has been shown to reliably provide continuous and near-real time information on forest disturbances. For this, we will extend a Google Earth Engine application, which has already been set-up for use within the North Rupununi region in a UK Space Agency project. This online interactive map will allow a comprehensive study and interpretation of the results by relevant agencies and communities. 4) We will disseminate findings to relevant government agencies and the communities. Using the survey data, deforestation radar analysis and participatory video footage, we will create a series of themed videos on Indigenous farming and food sovereignty. These will be used in a process of video-mediated dialogue (a method already established in the current Darwin project), with a) countrywide Indigenous associations and b) relevant government agencies such as the Minister of Amerindian Affairs and Ministry of Agriculture, to assess responses and actions, and links to current and future policy priorities. In particular, we will explore

two issues of concern: short term impacts and how to address these i.e. how can Indigenous food sovereignty be immediately supported while minimising biodiversity impacts; in the long-term, what lessons can be learnt from this 'Covid experiment' to promote Indigenous food sovereignty by formally enhancing policy support for sustainable and biodiversity-friendly practices.

RHUL will lead the project, collate, synthesise and present the results. MoAA will provide in-country project management and coordinate decision-maker meetings. NRDDB will lead community participation, field based activities, and development of dissemination videos. CC will undertake the radar analyses.

Q15. Change expected

Detail the expected changes 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). Please describe the changes for biodiversity/environment and for people in developing countries, and how they are linked. If you are proposing building on a current or past project, be clear how additional benefits will be delivered through this project.

When talking about people, please remember to give details of who will benefit and the number of beneficiaries expected. The number of communities is insufficient detail – number of households should be the largest unit used. If possible, indicate the number of women who will be impacted.

This research project aims to gather evidence of traditional forest farming practices and impacts at a unique moment in time to inform Indigenous associations, their constituents, and government agencies, as the Covid-19 pandemic provides a unique forced 're-localization' experiment allowing us to evaluate effects on sustainable livelihoods and biodiversity. It builds on our current Darwin project, by focusing on a central facet of traditional knowledge, namely Indigenous farming, and looking at the short-term responses to the pandemic, and the potential long-term benefits towards greater food sovereignty and biodiversity conservation.

Additional immediate benefits delivered through this project include:

1) increase the capacity of Indigenous communities (approximately 200 households) to understand and promote food sovereignty, the means to act collectively to mitigate short-term crises such as Covid-19, and greater voice and representation within relevant government agencies;

2) increase the capacity of Indigenous associations (such as the NRDDB) for research, and communicate the impacts and responses to Covid-19;

3) improve valuing of traditional knowledge and community-driven responses to Covid-19 by local and national decision-makers through better practices of engagement, agenda setting, and programme planning and delivery. On this point, our current Darwin project is finalising a Traditional Knowledge National Action Plan, and the findings from this project will feed directly into that policy document.

Additional long-term benefits delivered through this project include:

1) promotion and reinforcement of Indigenous practices and livelihoods that directly contribute to biodiversity conservation, ecological sustainability and poverty alleviation which can be sustained without ongoing aid and establish self-determination as a key principle of engagement.

2) support the establishment of strategies and policies for minimising negative and maximising positive impacts on biodiversity, livelihoods and traditional knowledge.

3) provide baseline data which will underpin impact assessments on livelihoods and biodiversity for current and emerging development initiatives within the region.

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

No Response

Section 8 - Aims, Objectives and Exit Strategy

Q16. Aims and objectives

Clearly outline the aim and objectives of the project and how the achievement will be measured. Use SMART objectives if possible.

Aim: To assess the impacts of forced Covid-19 're-localization' on Indigenous rotational forest farming so as to inform decision making processes and policies incentivising Indigenous food sovereignty, biodiversity conservation and resilience to escalating disruptive events, from pandemics to climate change weather extremes.

Objectives:

1) Develop an evidence base on the impacts of forced Covid-19 're-localization' on Indigenous farming, particularly on methods of production, agrobiodiversity, food preparation and consumption, and the transmission of knowledge between elders and youth.

Indicators: 1a. Report combining farming survey from 2020 and prior 8 years and participatory video data produced; 1b. At least 3 participatory videos on Indigenous farming and food sovereignty produced. MoV: 1a. Report published on project website; 1b. Participatory videos posted on community video database www.comunityownedsolutions.org and distributed to communities.

2) Evaluate the impact that increased Indigenous farming practices have exerted on forests during the forced Covid-19 're-localization' period.

Indicators: 2a. Satellite radar analyses of land cover and land use changes in 2020 and prior 4 years (2016-2019) including impact on extent, type and distribution of deforestation.

MoV: Analyses published both on project website and on the online mapping application.

3) Develop actions and policy priorities to address both short-term and long-term Indigenous food sovereignty concerns.

Indicators: 3a. At least two video-mediated dialogues initiated between Indigenous communities and local /

national decision-makers; 3b Traditional Knowledge National Action Plan revised according to project findings

MoV: 3a. Pre- and post-evaluation of screenings of participatory videos to decision-makers to assess response and actions. Final report on video-mediated dialogues on Indigenous food sovereignty published on project website; 3b. Revisions to Traditional Knowledge National Action Plan incorporated into final document.

Q17. 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".

We aim for the project to reach a sustainable end point, where the findings of the project are fed into the actions and policies of the major Indigenous organisations in the country, as well as the key government agencies of the Ministry of Amerindian Affairs (MoAA) and the Ministry of Agriculture. As a partner on the project, the NRDDB will play an important role in this process, helping to lobby government and advocate on behalf of its constituents, as well as ensuring the villages under its jurisdiction are able to incorporate findings into their village plans and development. In addition, the project will feed directly into our current Darwin project via the Traditional Knowledge National Action Plan (TKNAP) currently being finalised and consulted upon, and which is being championed by the MoAA and the National Toshaos Council (NTC). The Cobra Collective will also be a key player in promoting best practices identified through its activities and international networks. We will monitor and evaluate throughout the project the extent to which our local and national partner organisations are taking ownership of the outputs/processes, and intervene as necessary to ensure that the benefits of the project are secured.

Section 9 - Budget

Q18. Budget

Provide a detailed breakdown of costs to be funded by the Darwin Initiative/Darwin Plus/IWT Challenge Fund in GBP.

See <u>Finance for Darwin/IWT</u> for which costs sit under which budget line.

Budget Line	Cost in £ (GBP)
Staff costs	
Consultancy costs	0
Overhead costs	
Travel and subsistence	
Operating costs	
Capital equipment*	

Other costs	
Total (Must be less than or equal to £60,000)	30,728.00
*If you are proposing to purchase any capital items over £1,000 please detail these here and provide justification below	Will include three tablets for participatory video work.

Q19. Financial Risk Management

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

There is a limited risk that funds could be directed to non-project activities but we have mitigated against this by RHUL having direct management over all funds. All expenditure receipts will be collected and monthly reporting of expenditure will be undertaken to ensure funds are spent as indicated in the project budget.

The project will adopt a zero tolerance to bribery and fraud. To achieve this aim we have committed to take the following actions:

- ensure staff who are most likely to find themselves in a position where they are asked to offer a bribe or commit fraud are aware of how to respond and deal with the situation. If the project team are unsure whether something constitutes a bribe or fraud they must discuss their concerns with the Project Leader/In-country Project Coordinator. Staff will be instructed to inform the Project Leader/In-country Project Coordinator if they are offered a bribe, asked to make one or suspect that this may happen in the future;

- ensure that all staff act in an honest, ethical, professional, open and transparent manner at all times. We will be monitoring the exchange rate to ensure that any fluctuations do not risk project activities.

Q20. Capital items

If you plan to purchase capital items with Darwin/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.

We will purchase three tablets to support the participatory video work. These will be left with the NRDDB to support continued and future participatory video activities.

Q21. 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.

Our project will comprise engagement with local communities, and Indigenous and government decisionmakers through fieldwork and dissemination activities. Our total Darwin budget request (£30,728) therefore reflects staff costs for community researchers and travel / subsistence costs for those researchers. Recognising the importance of the project, all partner institutions have generously pledged in-kind contributions in the form of salaries, office space and equipment. We are building on existing and long-term collaborations in Guyana to maximise efficiency in project delivery.

The project costs are based on previous experience of the costs of the same or similar activities such as community engagement, staff rates, as well as logistical costs. Travel and subsistence costs have been kept as low as possible while ensuring they are sufficient to enable timely and effective delivery of project activities. There are no international travel costs as all field activities will be carried out by Guyanese staff. RHUL finance staff have considerable experience and expertise in managing project budgets and meeting donor reporting requirements. The Project Leader, and In-country Project Coordinator are experienced in carrying out projects efficiently to budget and will review spend against budget in fortnightly meetings to deal with any significant and/or unexpected variations.

Section 10 - Ethics and Safeguarding

Q22. Ethics

Outline your approach to meeting Darwin/IWT's key principles for ethics as outlined in the guidance note. Additionally, are there 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?

We will follow the Right of Free, Prior and Informed Consent (FPIC) processes stated in the 2007 United Nations Declaration on the Rights of Indigenous Peoples. Our current Guyanese permit, RHUL ethics and health and safety risk assessment will be reviewed in line with project activities, and updated and disseminated as necessary. We have strong leadership and participation through our Indigenous partner and through community researchers. All necessary travel and subsistence costs for the participants are covered by the budget requested. Participants shall be thoroughly informed of project details, including aim, methodology, conditions of participation and intended output distribution.

Q23. Safeguarding

Projects funded through the Darwin Initiative/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. The award Terms and Conditions set out clear requirements on safeguarding. Please confirm you have read and understand these and that you comply with them all.

Checked

Section 11 - Key Milestones

Q24. Provide an overview of your proposed project, outlining key milestones.

N.B. This should cover the period of your requested project only and the start/end dates should match with those provided in Question 7.

Date	Key Milestone
01 January 2021	START
10 January 2021	All community researchers employed
31 January 2021	SAR radar analyses completed
15 February 2021	Farming survey and participatory video data collection completed
28 February 2021	Participatory films completed
10 March 2021	Video-mediated dialogues completed
30 March 2021	Project reports completed
No Response	No Response
31 March 2021	FINISH

Section 12 - Certification

Q25. FCDO notifications

Please check the box if you think that there are sensitivities that the Foreign, Commonwealth and Development Office will need to be aware of should they want to publicise the project's success in the Darwin/IWT competition in the host country.

Unchecked

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.

 \Box Yes (no written advice)

Q26. Certification

On behalf of the

trustees

of

Royal Holloway University of London

I apply for a grant of

£30,728.00

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 a CV for the Project Leader/co-PL and letters or confirmation of support (uploaded at appropriate points in application)

Checked

Name	ALICEN NICKSON
Position in the organisation	Director, Research & Innovation, RHUL
Signature (please upload e-signature)	 <u>Mistry Darwin Nov 2020 certification</u> 02/11/2020 11:11:42 pdf 196.54 KB

Section 13 - Submission Checklist

Checklist for submission

	Check
I have read the Guidance, including the "Guidance Notes for Applicants" and "Finance for Darwin and IWT Challenge Fund".	Checked
I have read, and can meet, the current Terms and Conditions for the relevant fund.	Checked
I have provided actual start and end dates for my project.	Checked
I have provided my budget in GBP.	Checked
The application has been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).	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 included a 1 page CV for the Project Leader (and co-Project Leader if relevant).	Checked
I have included a letter or electronic confirmation of support from the lead organisation and main partner organisation(s) identified at Question 11, or an explanation of why not.	Checked
I have checked the 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

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 <u>here</u>. This Privacy Notice must be provided to all individuals whose personal data is supplied in the application form. Some information may be used when publicising the Darwin Initiative including project details (usually title, lead 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).