

Applicant: **Edwards, Francois**
Organisation: **Centre for Ecology & Hydrology**
Funding Sought: **£10,337.98**
Funding Awarded: **£10,337.98**

DIR26FW\1015

DARFW050 Kingsley Kamtambe

The fellow will learn the techniques needed for developing river ecosystem health assessment frameworks, exploring the process from field monitoring all the way to reporting at national scales. He will return to his organisation equipped with the skills and knowledge to lead the development of similar systems in Malawi.

Section 1 - Contact Details

PRIMARY APPLICANT DETAILS

Title Dr
Name Francois
Surname Edwards
Organisation Centre for Ecology & Hydrology
Tel (Work)
Email (Work)
Address

GMS ORGANISATION

Type	Organisation
Name	Centre for Ecology & Hydrology
Phone (Work)	
Email (Work)	
Website (Work)	
Address	

Section 2 - Title, Dates & Budget Summary

Q3. Name and official address of proposed Darwin Fellow

(include email address). Please include a one page CV with the package of CVs for Q7.

Name Kingsley Kamtambe

Address

Email Address

Q4. Summary of proposed Fellowship i.e. Outcome

The fellow will learn the techniques needed for developing river ecosystem health assessment frameworks, exploring the process from field monitoring all the way to reporting at national scales. He will return to his organisation equipped with the skills and knowledge to lead the development of similar systems in Malawi.

Q5. Project dates

Start date:

01 July 2020

End date:

31 December 2020

Duration (e.g. 1 year, 2 months):

0 year, 6 months

Q6. Budget summary

Total

(Apr - Mar) £

10,337.98

Section 3 - Principals

Q7. Principals in the Project

Please give the details of the individuals from the Lead Organisation (and other institutions if relevant) who would be directly involved in supervising/working with the Darwin Fellow. Please provide a one page CV for each of these named individuals and remember to include the Fellow's CV in the pdf. You may copy and paste this table if you need to provide details of more individuals.

Details	Project Leader	Other Expert	Other Expert	Other Expert
Surname	Edwards	Johns	Bowes	<i>No Response</i>
Forenames(s)	Francois	Tim	Michael	<i>No Response</i>
Post held	Lead river ecologist	Environmental Monitoring Team Leader	Head of river water quality and ecology	<i>No Response</i>
Organisation				<i>No Response</i>
<hr/>				
Telephone/Skype				
Email				<i>No Response</i>

Do you require more fields?

No

Please provide a one page CV for each of these named individuals, including the Fellow named at Q3, uploaded as one PDF.

Section 4 - Aims, Activities & Achievements

Q8. Describe briefly the aims, activities and achievements of the Lead Organisation

(Large organisations please note this should describe your unit or department)

The Centre for Ecology & Hydrology (CEH) is the UK's Centre of Excellence for integrated research in terrestrial and freshwater ecosystems and biodiversity. As part of UK Research and Innovation (UKRI), we provide innovative, independent and interdisciplinary science and long-term environmental monitoring. This forms an integral part of the UK's science vision and strategy.

Our science supports long-term environmental monitoring, expert analysis, data management and modelling. It helps the UK to meet strategic needs, including working towards the Convention on Biological Diversity. It underpins our ability to support Sustainable Development Goals in Europe, Asia, Africa and South America.

The River Water Quality and Ecology group carries out research and consultancy on the environmental degradation of rivers and the resulting impacts on ecological functioning, biodiversity and habitats. The group produces assessment tools and decision making tools for catchment management and habitat restoration, and species conservation in the UK, Africa and Asia.

Q9. Describe briefly the aims, activities and achievements of the proposed Darwin Fellow's employing organisation.

(Large organisations please note this should describe your unit or department)

Purpose: To plan, manage and develop the fisheries industry in Malawi; To develop, protect and conserve the national fish heritage of Malawi through appropriate control mechanisms

Vision: Towards a sustained fish supply and excellent fisheries and aquaculture delivery services

Functions:

- Carrying out fisheries research on various water bodies
- Disseminate research information necessary for proper exploitation, management, conservation of biodiversity and investment in fisheries
- Development of capacity, knowledge and skills by providing appropriate training programmes for both user communities and the Department
- Promoting fish production from small holder and large scale fish farming operations
- Fostering greater community involvement in resources management to improve effectiveness and appropriateness of management initiatives
- Monitoring and where appropriate controlling the exploitation of fish directing and regulating production within maximum sustainable limits for each fishery; and
- Formulating laws to safeguard the resources from any other threat including non-native invasive species.


Q10. Describe briefly the proposed Fellow's current role within their organisation and their link to a Darwin project (if applicable), including the project reference number, his/her role in that project and any ongoing involvement.

If the Fellow has no link to a Darwin project please discuss their involvement in implementing the biodiversity conventions, treaties and agreements supported by the Darwin Initiative.


Employed by the DoF since 2012, Kamtambe has been involved and played key roles in a number of research studies, particularly focused on fish biodiversity conservation, aquatic habitat assessment and fisheries monitoring. His research work supports SDGs 2,12 &13 through sustainable development of fisheries; and also the CBD (articles 6, 7, 8, 10) through biodiversity monitoring and conservation. Kamtambe has a passion for monitoring and assessing river ecosystems and has been involved in the biological assessment of the Shire , Likangala and Linthipe rivers. These rivers are among the important river systems in Malawi. The Linthipe is one of the few rivers in which Opsaridium microlepis (an endangered species) breeds (PACT USAID funded). His work includes a study on ecosystem assessment of Lake Malombe, funded by FAO TCP project in 2016. This study was a baseline survey to determine the possible interventions to restore the Chambo fishery, a key food resource to local people, which collapsed in the late 1980's.

Under the fisheries department, Kamtambe has been a lead researcher in the use of vessel monitoring system (VMS), (Funded by FAO and GEF) to monitor commercial fishing boats activities and prevention of fishing in prohibited areas to maintain sustainability.

Please provide a combined PDF of all Letters of Support.

 [DIR26FW1015 Fellowship Letters of Support](#)

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Section 5 - Outcomes & Objectives

Q11. Provide a concept note for the Darwin Fellowship. This should include:

Q11a. A clear outline of the aim and objectives of the Fellowship, and an indication of how the achievement will be measured

The aim is to develop the capability, knowledge and skills of the fellow in the theory and practices that underpin river health assessment systems and conservation of riverine habitats and species. The fellow will then be able to take a leading role within his home organisation (Malawi department of fisheries) and his country, where these skills are absent but in high demand. Malawi rivers are severely degraded but have rich aquatic biodiversity, much of which is of conservation interest (IUCN).

Specifically the fellow will develop new capabilities in:

- standard field and laboratory methods and safe practices used for riverine biodiversity sampling
- analysis of biodiversity and habitat monitoring data to develop river health scoring indicators
- river typology, pressures and impacts analysis, monitoring network selection
- approaches to integrating multiple indicators into one framework to derive an ecosystem status class
- techniques for integrating general measures of ecosystem health and biodiversity richness, with indicators

focused on species of conservation interest to shape river management targets and priorities
-reporting skills and tools for dissemination to the public, stakeholders and policy makers
-greater ability to explain the relevance to human welfare and economies of riverine ecosystem services, freshwater biodiversity conservation and catchment management to a range of audiences

The overarching objective of the fellowship is to develop the fellow skills so that knowledge of local river habitats and species can be incorporated into the standard techniques listed above to produce Malawi-specific tools and assessment frameworks. The intention is for the fellow to co-lead (with the principal expert) a Darwin Initiative main project proposal aimed at developing river assessment and conservation in Malawi.

Achievement will be measured on an on-going basis through the ability of the fellow to translate new skills and knowledge to the Malawi context to outline a draft river health assessment, guided by Edwards.

Q11b. The role of the Lead Organisation, and others where relevant

The lead organisation (CEH, Wallingford) will host the fellow, providing office facilities and local support as required. The fellow will be supervised by Dr Edwards, who will also manage the fellowship administration, finances and reporting with help from the CEH administrative support team.

Most of the fellow's training will be delivered by CEH. There, the fellow will learn all aspects of constructing river health assessment systems and how different countries have developed these. In particular the fellow will explore the EU water framework directive and its ecology-focused reporting tools. The fellow will follow a guided self learning programme but will also have sessions in the field and laboratory with CEH staff. The fellow will have daily interactions with ~ 200 scientists including ecologists, chemists, hydrologists, and experts in GIS, remote sensing and modelling. The fellow will travel to CEH Edinburgh to meet with lake ecologists and explore river/lake ecological dependencies, highly relevant to Malawi. The fellow will benefit from the input of Dr Bowes, CEH, an expert on river water quality monitoring, which forms an essential aspect of river health assessments. The fellow will be supported by Dr Edwards to apply his new skills and knowledge to the Malawi context

The Environment Agency (who are the government agency responsible for river health assessments in the UK) will host the fellow on specified days as relevant activities arise (10 working days in total). These mini placements will provide the fellow with hands on experience of field, laboratory and reporting techniques related to river health assessment. This way the fellow will learn how river assessment work is delivered in practice under real term conditions. Mr Johns (EA) has the ideal experience, leading the delivery of regional river monitoring, and the statutory reporting to the Water Framework Directive.

Section 6 - Legacy & Collaboration

Q12. Legacy

Provide information on how the Darwin Fellow will utilise, promote and disseminate the benefits of the Fellowship on return to his/her home country. Will a strategy be developed during the Fellowship to ensure this is achieved?

The fellow currently leads all efforts in Malawi to construct river health assessment systems. He will disseminate his new knowledge through presentations to other Department of Fisheries staff, who are responsible for aquatic biodiversity management in Malawi.

The fellow will train colleagues in the relevant fieldwork and laboratory techniques via lectures and hands-on exercises.

The fellow will produce a high level synopsis of the concept of river health assessments for policy makers

and decision makers, this will be routed to ministers through Dr Friday Njaya, head of the Department of Fisheries, who is based in the ministry for agriculture and environment in the capital, Lilongwe. A strategy will be developed during the fellowship to disseminate knowledge in-country. During his time at CEH, the fellow will be provided with, and helped to adapt, lecture materials used by Dr Edwards to teach and disseminate river health assessment techniques to a range of audiences. This will put the fellow in a good position to disseminate new knowledge in an efficient and professional manner. The fellow will learn how to deliver field and laboratory demonstrations by experiencing them in person at CEH and the Environment Agency.

Q13. How will the Fellowship assist the Fellow's organisation and/or local communities and/or home country in working towards the objectives (or implementation) of the Conventions, Treaties and Agreements supported by the Darwin Initiative?

Please refer to specific Articles or cross cutting themes as appropriate.

The fellowship will support the Malawi government and its Department of Fisheries to work towards several UN Sustainable Development Goals, highly relevant to local communities:

#2 zero hunger - by increasing food security in terms of sustaining river fisheries

#12 responsible consumption and production - by providing the monitoring information to develop a sustainable fisheries policy

#13 climate action - by providing current ecological status assessments to monitor change, identify vulnerabilities and develop a strategy towards resilience to climate change for river ecosystems

The fellowship will allow the Malawi government and its Department of Fisheries to work towards implementing its responsibilities under:

A) The Convention on Biological Diversity, notably the article 7: the requirement for identification of biodiversity for conservation, and for its monitoring; but also article 6 (general measures); article 8 (in situ conservation); article 10 (sustainable use of components of biological diversity).

B) The convention on the conservation of migratory species of wild animals because of several species of migratory fish, some with conservation status, that occur in Malawi rivers.

C) The Ramsar Convention on Wetlands: the Elephant Marsh Ramsar site is in line with Shire river and therefore highly dependent on river conditions to support its biodiversity.

Q14. What collaboration has there been with the Darwin Fellow to date in developing the proposal, and what collaboration is planned for the duration of the Fellowship?

Where relevant, describe any consultation or collaboration by the proposed Fellow within his/her own country.

The fellow Kamtambe (Department of Fisheries Malawi DoF), collaborated with Dr Edwards, lead expert, on a World Bank funded project concerning the environmental impacts on the Shire River of the planned Mpatamanga HPP, Malawi. This led to them devising a prototype tool for river assessment in Malawi. Dr Edwards went on to apply and gain funding from the New Opportunities Fund from CEH. This led to a 2 day meeting in Liwonde, Malawi with DoF, several academic institutes and some stakeholders on the requirements for a national assessment system for Malawi rivers. Since then, Kamtambe and Edwards have worked towards developing their vision, assembling the elements to seek funding for a project dedicated to building a national framework for river health assessment for Malawi. The fellow has thus contributed fully to the design of this fellowship proposal, aimed at developing DoF and his own capability in this type of

work. Kamtambe will assist Edwards closely during the fellowship, so that Kamtambe can learn the various intricate aspects of river assessment from field to laboratory to interpretation and reporting. During this time, Kamtambe will work towards refining the technical details of our wider project plan.

Q15. Where will the Darwin Fellow be based?

Please be specific with organisational details and dates (where more than one location).

The fellow will be based full time at the Centre for Ecology & Hydrology in Wallingford, UK for the duration of the proposed fellowship (6 months from 01/07/20). He will be embedded in the River Water Quality and Ecology Group, and share an office with other visiting scientists and fellows. He will be managed by Dr Edwards.

The fellow will have a 3 day trip to the CEH office in Edinburgh in September 2020 to interact with lake ecologists that are based there.

The fellow will spend 2 weeks of his fellowship shadowing staff at the Environment Agency, supervised by Tim Johns. The Environment Agency regional office is located next to the Centre for Ecology & Hydrology in Wallingford, avoiding traveling costs. No dates are set for this to allow flexibility so that Kamtambe can participate in relevant activities as they arise. We expect these placements to take place between August and October 2020.


Section 7 - Programme of Work & Funding

Q16. Provide a programme of work, including key milestones, through the duration of the Fellowship


Please complete the Excel spreadsheet linked below to describe the intended workplan for your project.


[Fellowship Implementation Timetable Template](#)

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

 [DIR26FW1015_Edwards_R26_Fellowship_-_Implementation_Timetable_FINAL](#)

 04/11/2019





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Q17. Costs

Using UK Government Financial Years (April 2020 – March 2021), please complete your budget using the template provided here and upload below.

Please note, this should not be presented as academic years.

 [DIR26FW1015_Edwards_R26_Fellowship_Budget_FINAL](#)
 29/10/2019
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 xlsx 23.38 KB

Q18. Other Sources of funding: provide details and amounts

Date applied for	Donor Organisation	Amount (include currency)	Comments (including confirmed/unconfirmed)
10 October 2019	Centre for Ecology & Hydrology		10 days Dr Edwards staff time at FEC
<i>No Response</i>	<i>No Response</i>	<i>No Response</i>	<i>No Response</i>
<i>No Response</i>	<i>No Response</i>	<i>No Response</i>	<i>No Response</i>
<i>No Response</i>	<i>No Response</i>	<i>No Response</i>	<i>No Response</i>

Q19. FCO Notification

Please check the box if you think that there are sensitivities that the Foreign and Commonwealth Office will need to be aware of should they want to publicise details of the Darwin Fellowship and the resultant work in the UK or the Darwin Fellow's home country.

Unchecked

Please comment on whether you require a visa to undertake this Fellowship. If you require a visa, do you foresee any difficulty in being granted a visa?

Fellow will require a visa to the UK from Malawi, we do not foresee any difficulties in obtaining a UK visa

Section 8 - Certification

Q20. Certification

On behalf of the

Company

of

Centre for Ecology & Hydrology

I apply for a grant of




£10,337.98

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 enclose one page CVs for project principals and letters of support as requested in the Guidance.

Checked

Name	Jack O'Brien
Position in Organisation	research contracts advisor
Signed	 DIR26FW1015 Fellowship signed  01/11/2019  09:53:30  pdf 125.66 KB
Dated	04 November 2019

Section 9 - Submission Checklist

I have read the Guidance.	Checked
I have read, and can meet, the current Terms and Conditions for this fund.	Checked
I have provided actual start and end dates for the Fellowship.	Checked
I have provided my budget based on UK government financial years i.e. 1 April - 31 March.	Checked
I have checked that my budget is complete, correctly adds up and that I have included the correct final total in the application.	Checked
The application been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).	Checked
I have included a 1 page CV for the proposed Fellow and the experts listed in Question 7.	Checked
I have provided the relevant letters of support.	Checked
I have checked the Darwin website immediately prior to submission to ensure there are no late updates.	Checked

We would like to keep in touch!

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

Checked

Data protection and use of personal data

Information supplied in 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 organization, 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).