Applicant: **Budhathoki, Nama Raj**
Organisation: **HUMANITARIAN OPENSTREETMAP TEAM UNITED STATES INC.**
Funding Sought: **£0.00**

DIR31IN\1153

M4S: Monitoring for Seagrass Conservation through a Participatory Open-mapping Approach

The Monitoring for Seagrass Conservation through a Participatory Open-mapping Approach (M4S) project will develop a novel participatory open-mapping approach with coastal communities in Metinaro, Timor-Leste to identify, protect and conserve seagrass ecosystems.

Humanitarian OpenStreetMap Team (HOT) will partner with Konservasaun Flora e Fauna (KFF) to engage local communities to learn about the benefits of seagrass conservation, collect data about the status of current ecosystems and create drone imagery and open mapping tools to help monitor them.

PRIMARY APPLICANT DETAILS

Title	Dr
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DIR31IN\1153

M4S: Monitoring for Seagrass Conservation through a Participatory Open-mapping Approach

Section 1 - Contact Details

PRIMARY APPLICANT DETAILS

Title	Dr
Name	Nama Raj
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GMS ORGANISATION

Type	**General**
Name	HUMANITARIAN OPENSTREETMAP TEAM UNITED STATES INC.
Phone (Work)	[redacted]
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Section 2 - Project Summary, Ecosystems, Approaches and Threats

Q3. Project Title

M4S: Monitoring for Seagrass Conservation through a Participatory Open-mapping Approach

Please attach a cover letter as a PDF document.

Cover Letter_M4S Application
17/10/2024
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pdf 93.31 KB

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

⦿ No

Q5. Key Ecosystems, Approaches and Threats

Please select up to 3 biomes that are of focus, up to 3 conservation actions that characterise your approach, and up to 3 threats to biodiversity you intend to address, from dropdown lists.

Biome 1

Supralittoral coastal systems

Biome 2

Shoreline systems

Biome 3

No Response

Conservation Action 1

Research & Monitoring

Conservation Action 2

Awareness Raising

Conservation Action 3

Education & Training

Threat 1

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

Threat 2

Climate change & severe weather

Threat 3

Agriculture & aquaculture (incl. plantations)

Q6. Summary of project

Please provide a brief non-technical summary of your project: the problem/need it is trying to address, its aims, and the key activities you plan on undertaking.

The Monitoring for Seagrass Conservation through a Participatory Open-mapping Approach (M4S) project will develop a novel participatory open-mapping approach with coastal communities in Metinaro, Timor-Leste to identify, protect and conserve seagrass ecosystems.

Humanitarian OpenStreetMap Team (HOT) will partner with Konservasaun Flora e Fauna (KFF) to engage local communities to learn about the benefits of seagrass conservation, collect data about the status of current ecosystems and create drone imagery and open mapping tools to help monitor them.

Section 3 - Dates & Budget Summary

Q7. Country(ies)

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

Country 1	Timor Leste (East Timor)	**Country 2**	*No Response*
Country 3	*No Response*	**Country 4**	*No Response*

Do you require more fields?

⦿ No

Q8. Project dates

Start date:	End date:	Duration (e.g. 1 year, 8 months):
01 April 2025	31 March 2027	2 years

Q9. Budget Summary

Darwin Initiative Funding Request	2025/26	2026/27	Total request
(1 Apr - 31 Mar) £	£88,469.00	£56,846.00	145,315.00

Q10. Do you have proposed matched funding arrangements?

⦿ Yes

Please ensure you clearly outline your matched funding arrangement in the budget.

Q11. If you have a significant amount of unconfirmed matched funding, please clarify how you will fund the project if you don't manage to secure this?

The proposed matched funding is an in-kind allocation of existing staff members' time for HOT who are not included in the budget but who will spend time on this project. Some trainings conducted have also been included as in-kind. We will continue to seek additional funding for the project from other sources such as GIZ and SDC.

Q12. Have you received, applied for, or plan to apply for any other UK Government funding for your proposed project or a similar project?

⦿ Yes

Please give details.

If you have received, applied for or plan to apply with similar projects, explain how your activities are distinct and complementary.

HOT submitted an application for OCEANs grant in 2024 for an unrelated project in the fisheries sector in Latin America & the Caribbean that was not selected for funding. This project focused on tackling coastal issues more broadly that threaten vulnerable populations, including mangrove conservation, enhancing tourism and fishing industries through sustainable monitoring practices.

Our proposed project is governed by a different regional hub at HOT (Asia-Pacific), with a different geography (Timor-Leste) and a more niched marine focus in seagrass. This application also aims to evidence a novel approach to seagrass monitoring, with completely different activities in open mapping than the previously submitted application.

Section 4 - Darwin Objectives and Conventions

Q13. Problem the project is trying to address

Please describe the problem your project is trying to address in terms of biodiversity and its relationship with multi-dimensional poverty.

Located in the Coral Triangle, Timor-Leste's coastal ecosystems have some of the richest marine biodiversity in the world (Dugong & Seagrass Hub). As a Least Developed Country, 29.7% of the nation's population fall below the international poverty line (ADB, 2023). Many people rely on seagrass habitats as critical sources of nutrition and cash income. These habitats are an important feeding ground for many types of fish and sea life (eg., crabs, sea urchins, molluscs). They are home to biodiverse species listed by IUCN as threatened and vulnerable, such as the green sea turtle and dugong. They also benefit the wider ecosystem by reducing coastal erosion and sedimentation. However, seagrass ecosystems are at risk of degradation as a result of harmful fishing practices, coastal development, and land-based pollution (Seagrass Watch).

The government and communities in Timor-Leste are largely unaware of the importance of these seagrass ecosystems to the coastal environment. To date, no comprehensive survey has mapped the country's entire seagrass resources.

Without an accurate and accessible open database of these habitats, the government and communities will not have the information they need to monitor the health of this important resource, and there is a risk of further deterioration of already fragile habitats. Without a clear understanding of the importance and location of seagrass, activities like overfishing and coastal development will continue to damage them and impact sea life populations.

To mitigate this, the government of Timor-Leste urgently needs rapid, scalable approaches that can expand its number of Marine Protected Areas (MPAs) in coastal and marine waters. It also needs to introduce sustainable natural resource management practices to coastal communities to co-protect and monitor existing vulnerable seagrass habitats so that they will have access to reliable sources of livelihoods in the long-term.

A key roadblock is in the identification and mapping of these coastal and marine seagrass habitats. To date, seagrass conservation is dependent on remote sensing approaches requiring satellite imagery, This may be costly to procure or difficult to locate. In addition, there are few mapping tools that integrate community knowledge and ideas, which can be key to accurately identifying and recording seagrass locations.

The project aims to bridge these gaps by leveraging participatory open mapping approaches to create reliable,

accurate and open map data that actively involves and empowers coastal communities to contribute to seagrass monitoring to create a healthier seabed that supports healthy fishing and other types of economic activities. Participatory open mapping will thus address seagrass biodiversity from a livelihood lens, creating healthier and more sustainable fishing practices.

Additionally, this open data will also address the UNDP's Blue Economy 2023 report's identified gap on the identification and mapping of coastal and marine habitats, which will be used for the Blue Economy's valuation and planning purposes.

Q14. Biodiversity Conventions, Treaties and Agreements

Q14a. Your project must support the commitments of one or more of the agreements listed below. Please indicate which agreement(s) will be supported.

- ☑ Convention on Biological Diversity (CBD)
- ☑ Convention on the Conservation of Migratory Species of Wild Animals (CMS)
- ☑ United Nations Framework Convention on Climate Change (UNFCCC)
- ☑ Global Goals for Sustainable Development (SDGs)

Q14b. National and International Policy Alignment

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

The importance of conserving seagrass and dugongs is referenced in Timor-Leste's NBSAP (2011 - 2020). The project's introduction of a participatory open-mapping approach, a collective involvement in the monitoring of marine resources, supports the NBSAP's priority of leveraging participatory planning in supporting conservation. The participatory nature of the project will also enhance community knowledge sharing on climate change and its impact through the country's National Adaptation Program of Action (NAPA) to Climate Change.
Under Timor-Leste's 30 x 30 target, it has committed to conserve 30% of its coastal and marine waters, but the country only has three MPAs, which cover just 3% of its waters (Oceans5, 2022). A stronger approach in community-led marine conservation will allow Timor-Leste to scale-up and create more MPAs under its Strategic Development Plan (2011 - 2030) by ensuring community buy-in on the importance of marine habitat biodiversity.

Timor-Leste is a signatory to the MoU on the Conservation and Management of Dugongs and their Habitats (Dugong MoU), which includes seagrass as a main habitat.
The project will also complement UNDP's Blue Economy Roadmap, which aims to diversify Timor-Leste's sources of revenue, through tested approaches mapping seagrass habitats for overfishing regulation to support healthier fishing grounds.

The project will also contribute towards international conventions which Timor-Leste is a signatory of, including: UNFCCC, CBD, CMS, and The Sendai Framework for Disaster Risk Reduction, and the 2030 Seagrass Breakthrough announced in COP28.

Progress towards SDG 13 (climate action) and SDG 14 (life below water) will be supported by the project through empowering coastal communities to contribute to local conservation efforts by improving their understanding of protecting marine habitats' biodiversity and ecosystem.

Section 5 - Method, Innovation, Capability & Capacity

Q15. Methodology

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

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

A participatory mapping approach is defined by HOT (Participatory Mapping Toolkit, 2018) as the creation of digital maps by, and using input from, local communities. When combined with tools to create high-quality imagery, participatory maps can serve as visual representations of what a community perceives as its place and the significant features within it. Coastal communities can leverage this approach to apply to conservation, including seagrass, ensuring conservation monitoring efforts are collective and rooted in local knowledge. HOT has utilised this approach in numerous projects across the world, paving the way for participatory mapping methodology.

M4S will combine 3D drone mapping and data collection tools (field and remote) to test and contextualise a novel open-mapping approach to seagrass. HOT will train community members to capture the imagery adding their local knowledge to tested tools and maps. HOT seeks to implement along the Metinaro, Timor-Leste coastline, an area that relies on fishing and where seagrass is exposed to frequent changes in coastal currents due to temperature increases, making it highly susceptible to deterioration.

Main activities will include:
-improving knowledge and awareness on seagrass locations and its level of deterioration through: (1) trainings on open mapping tools, including drone imagery, and (2) field data collection and tool refinement in datasets, surveys and cross-referenced seagrass information for the Ushahidi seagrass map;
-improving awareness of seagrass benefits and sustainable fishing practices through: (1) community meetings led by KFF, and (2) published knowledge products (Ushahidi seagrass map, guidance document, research report, 3 educational videos), disseminated through stakeholder in-person and virtual workshops to garner local government interest.

Risks will be identified (including GESI considerations) and captured through a data protection risk assessment. Mitigation will then take place throughout M4S's activities specified in Q22. A WhatsApp group will be set up with the community to address any concerns, feedback, or questions during the project.

M4S will contextualise the open mapping tools using mixed methodologies in: (1) collecting map data, including geo-coded photographs of underwater seagrass, from the field with communities and KFF, (2) direct observation and feedback, (3) participatory reviews of field map data, map tags (GESI sensitive) and drone imagery, and (4) all trained stakeholders (conservation organisations, coastal communities) completing pre and post-training/meeting questionnaires to capture their knowledge improvements.

M4S will be led by HOT's regional Asia-Pacific Hub with the Senior Program Manager acting as project lead and safeguarding focal point. HOT's role will be leading the project's training, mapping and data validation as well as research. HOT's Monitoring and Evaluation (M&E) Associate will compile evidence into a research report with recommendations, for government stakeholders to leverage in the dissemination workshops and long-term in national/local community management plans. KFF will act as partners leading awareness-raising activities with communities.

Project activities will be monitored using Asana and Airtable as management tools. Collected datasets will be

processed and validated by HOT's Technical Team (GIS Analyst and Senior Associate in Data Quality) using Ushahidi, automatically linked to HOT's Drone Tasking Manager with inputs from OpenStreetMap (OSM) and OpenAerialMap (OAM).

Q16. Innovation

Please specifically outline how your approach or project is innovative.

Is it the application of a proven approach in a distinctly different geography/issue/stakeholder (novel to the area), or in a different sector (novel to the sector), or an unproven approach in any sector (novel to the world)?

Our participatory open-mapping approach is novel to the conservation sector. While maps have been produced to monitor similar marine habitats, such as Global Mangrove Watch and UNEP's Ocean data Viewer, they mainly use remote sensing and geospatial imagery as the foundation, which can cause limitations to just referencing location.

M4S aims to capture more than just location data using geospatial imagery within its Ushahidi seagrass map, by cross-referencing field mapped data with seagrass applications to determine species and condition for level of deterioration. The Ushahidi seagrass map will be a first-of-its-kind in Timor-Leste, offering a virtual map with tagged information (species, condition, location by local definitions and others) on seagrass along Metinaro. Ushahidi is an open-source platform where communities can submit queries and information on seagrass during and beyond the project period.

Our approach's purpose is to leverage communities as citizens of science and active mappers so that they understand where seagrass locations are and use this information to inform their fishing practices. This becomes a process of active self-regulation by communities being able to make their own decisions on where and when to fish.

Current seagrass monitoring efforts include pinning locations on Google Maps without any clear underwater imagery and without being able to capture species and conditions. In addition, there have been no efforts beyond pinned locations in Timor-Leste for seagrass imagery. Introducing aerial/underwater imagery in combination with field data collection tools will be novel to the area.

Q17. Capability and Capacity

How will the project support the strengthening of capability and capacity of identified local and national partners, and stakeholders during its lifetime at organisational or individual levels? Please provide details of what form this will take, who will benefit (noting any Gender Equality and Social Inclusion (GESI) considerations), and the post-project value to the country.

At the organisational level, HOT is working in partnership with KFF, a leading conservation organisation in Timor-Leste, to strengthen their staff's expertise in open-source mapping, including drone mapping, and how these tools can support seagrass monitoring efforts on a large scale. HOT will design and provide training to KFF in three easy-to-use open mapping tools, as well as provide a practical data collection experience using drones. KFF will then train three additional local conservation organisations in open-mapping as well as coastal communities to create an ecosystem of organisations with new skills and expertise.

At an individual level, HOT will directly involve coastal communities in the co-design and testing of open mapping tools, integrating their local geographic knowledge into the Ushahidi seagrass map. This will result in map data that is more inclusive and the use of maps by new actors, including women, small-scale fisheries, and entrepreneurs. As a result of the project, communities will have improved knowledge about natural resource management as well as tools they can use to accomplish this at the individual and community levels. KFF will also lead 15 awareness-raising meetings in Metinaro communities discussing the benefits of seagrass as a resource and how regulated fishing (switching locations) can protect seagrass biodiversity.

HOT further plans to distribute a roster list of local mapping experts in Timor-Leste. This extends beyond the project period where KFF, coastal communities and conservation actors can contact a local open mapping expert when needed to help map a certain seagrass ecosystem, or support in further training of mapping tools.

Finally, two virtual and in-person workshops will be held to present the project's research report and Ushahidi seagrass map. KFF has extensive relationships with local government counterparts to ensure representatives can join and consider M4S's approach into national/local community management plans.

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

Annex 2 - references, map & glossary of terms - M4S Application
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pdf 3.95 MB

Section 6 - GESI, Awareness, Change Expected & Exit Strategy

Q18. Gender Equality and Social Inclusion (GESI)

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

House et. al (2024) highlights that decision-making in community-based fishing management (CBFM) is often concentrated with men, which impedes important interpretations of monitoring data for the fisheries sector and how local fisheries are run. Participation of women in monitoring the well-being of their local fisheries and fishing activities can contribute to a more inclusive environment in how fishing practices are conducted, and ultimately the level of sustainability present in the communities' fishing activities and their overall understanding of local conservation.

M4S will integrate gender-inclusive CBFM principles into the design of the project's tools. This includes ensuring gender parity in provided training and inclusive participatory data collection practices, with women, men and members from different economic backgrounds participating as enumerators. We will hold a co-design workshop with coastal communities post-field collection to discuss experiences and brainstorm GESI-inclusive tags to help define seagrass locations for the Ushahidi seagrass map. The co-design workshop will also be a space to discuss inclusion considerations in data usage, such as needs of men vs. women in understanding nearby seagrass locations, to reflect in the research report.

We will conduct an online data protection risk assessment prior to data collection, which includes equality and inclusion considerations such as access to and use of seagrass data among disadvantaged community members (youth, women, persons with disabilities, and ethnic minorities). This will help inform data collection practices and the types of data that need to be collected to ensure inclusivity, as well as the risks of certain types of data collected to disadvantaged groups.

HOT will involve youth (ages 18-24) who are entering their career or employment in fishing among their families

in awareness raising meetings. As a new generation of fishers, their understanding of the benefits of seagrass is imperative to the habitat's protection and long-term sustainability.

Q19. Change expected

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

M4S will provide direct support to 10 KFF staff, as well as an additional 30 staff in three local conservation organisations targeting 40 conservation workers total with increased capacity and capability (20 women and 20 men). 10 enumerators, both men and women, will be selected to conduct field data collection and involved in co-design of localised tools. A further 1,500 coastal community members will participate in awareness-raising meetings, including the 10 enumerators selected as project champions, 750 women, 750 men and 150 youth (18-24). We expect that 40% of that total group of beneficiaries (600 - 300 female, 300 male, including 50 youth) will benefit from enhanced well-being through field mapping stipends and increased knowledge and skills of fishing practices that will improve their incomes in the short and long term. In total, M4S will reach 1,540 direct beneficiaries.

We expect all stakeholders during the lifetime of the project to have access to tools and knowledge for continuous monitoring of seagrass locations and benefits, which includes: (1) seagrass locations being monitored over time (for both degradation and growth), and (2) knowledge of seagrass benefits being disseminated and shared, especially during the project's dissemination workshops.

The long-term change we expect to see is for local communities, organisations and municipal and national governments to integrate our participatory open-mapping approach into community management plans for improved conservation and protection. This includes embedding the project in key conservation programs from KFF and Blue Ventures. M4S has scalability potential to all of Timor-Leste and even nearby Pacific islands.

We expect to see GESI considered in all open mapping tools and maps developed as part of the project. This means female, youth, disadvantaged groups and varied economic status individuals being engaged in training, field data collection, co-design of tags and meetings to promote shared responsibility (data risk assessment results included).
The biodiversity benefits of our project will be a novel approach to monitor seagrass above-and-underwater that includes community participation. This will in turn lead to better regulation among coastal communities in their fishing practices - understanding where to fish, where not to fish based on seagrass deterioration and health. Both indicators relating to pre and post-training/meeting questionnaires and user feedback on the Ushahidi seagrass map will be able to tell us about any changed knowledge and wellbeing practices, such as using the seagrass map to rotate fishing locations.

This change in practice gives a chance for new seagrass roots to spread and grow in existing damaged areas. This will lead to an increase in returning fish populations that feed on seagrass and re-introduce dugongs that feed off of seagrass beds in Timor-Leste, restoring coastal seagrass biodiversity.

Activities specific to increasing awareness among coastal communities will address multidimensional poverty by offering alternate sustainable fishing practices as solutions, such as rotating fishing locations depending on seagrass health and MPAs, rather than having communities reliant on single fishing locations, continue to overfish and damage seagrass habitats.

Q20. Pathway to change

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

Our expected impact of actively protected and conserved seagrass by coastal communities in Timor-Leste will be achieved through: Improved awareness among local organisations and communities of seagrass locations, level of deterioration and of seagrass benefits in Timor-Leste.

The first half of this outcome focuses on a digitisation and data pathway through two outputs: (1.1) Local organisations and communities are trained in using open mapping tools, and (1.2) Geospatial data on seagrass locations is generated and new participatory open mapping tools are tested.

the second half of this outcome focuses on an education and knowledge pathway through two outputs: (1.3) Knowledge products are published and endorsed on a participatory open-mapping approach to seagrass conservation (including the dissemination and integration of tools in Timor-Leste), and (1.4) Educational activities on seagrass conservation increases awareness of coastal communities on sustainable fishing practices.

Our enabling conditions support an environment of accessible tools and knowledge for coastal communities (knowledge target), integration of the approach into community management planning (change target), and short-term outcomes of knowledge-sharing on seagrass benefits and seagrass locations monitored over time.

Our approach aims to become a scalable solution enabled by both pathways to change (education, data).

Q21. Sustainable benefits and scaling potential

Q21a. How will the project reach a point where benefits can be sustained post-funding? How will the required knowledge and skills remain available to sustain the benefits? How will you ensure your data and evidence will be accessible to others?

The Ushahidi seagrass map will be a new product created specifically for this project based on open-source tools and applications. The map will become a publicly available commodity with datasets available as digital public goods on the open platforms OpenStreetMap (OSM) and Open Aerial Map (OAM) so that any individual can contribute to and update the map and access imagery. HOT will continue to approve user additions, clean up invalid data, and monitor downloads beyond the initial project period.

Training materials produced will be published as annexes to the research report disseminated in two workshops. We anticipate that both KFF and Blue Ventures will incorporate the workflow in their ongoing programming for seagrass conservation with communities and that the government of Timor-Leste will be able to consider for integration into community management plans during the two dissemination workshops.

Q21b. If your approach works, what potential is there for scaling the approach further? Refer to Scalable Approaches (Landscape, Replication, System Change, Capacitation) in the guidance. What might prevent scaling, and how could this be addressed?

Our proposed project offers an approach scalable to all of Timor-Leste, through its integration and synergies with conservation programming, and aimed advocacy at integrating the approach into local community management plans. Target coastal communities will be capacitated to conduct data collection by themselves to expand the Ushahidi seagrass map available as a digital public good.

Our partnership with KFF will allow replication of the approach via their existing programming. Blue Ventures can also integrate our approach into their Dugong and Seagrass Hub, their conservation work in MPAs and as part of a systems change in conservation, and ongoing activities in DEFRA-supported projects in Timor-Leste.

Institutional donors, including development banks, have expressed interest in our idea for further fundraising to scale-up once the approach is tested.

Section 7 - Risk Management

Q22. Risk Management

Please outline the 7 key risks to achievement of your Project Outcome and how these risks will be managed and mitigated, referring to the Risk Guidance. This should include at least one Fiduciary, two Safeguarding, and one Delivery Chain Risk.

Risk Description	Impact	Prob.	Gross Risk	Mitigation	Residual Risk
Fiduciary (financial): funds not used for intended purposes or not accounted for (fraud, corruption, mishandling or misappropriated). Given the inclusive, multi-stakeholder approach the project will take, the involvement of many parties face a risk of funds being misused.	Moderate	Unlikely	Moderate	-Conduct necessary due diligence checks against consultants, trained organisations and contractors. Disbursement of funds will be hingent on pre-agreed deliverables. -Financial management tracking and projections kept confidential within HOT and KFF, with KFF following HOT's internal fraud policies. -HOT adhering to internal fraud policies. Code of conducts signed	Minor
Safeguarding: risk of sexual exploitation abuse and harassment (SEAH), or unintended harm to beneficiaries, the public, implementing partners, and staff. Given the inclusive, multi-stakeholder approach the project will take, the involvement of many parties face a risk of potential SEAH.	Major	Unlikely	Major	HOT's Code of Conduct follows IASC six core principles relating to sexual exploitation and abuse. As such, our project follows IASC by all HOT staff signing and adhering to HOT's Code of Conduct. Partner staff and consultants as part of the project will also be required to sign.	Minor

Safeguarding: risks to health, safety and security (HSS) of beneficiaries, the public. Implementing partners, and staff. The project is a novel approach involving the data collection of information on fisheries, including seagrass locations with rich fish populations. Data could be at risk of being used in a wrong way, primarily for commercial fishing/seagrass clearing purposes.	Major	Unlikely	Moderate	-Sensitive data mistakenly collected will be deleted (incl. fish populations). -Field data collection will include efforts not to collect data specific to fish or dugong populations. -Enumerators will be oriented on safety measures around data observations, what to collect/not collect during training and field collection daily briefings.	Minor
Delivery Chain: the overall risk associated with your delivery model. Given the novel nature of the project in Timor-Leste and the involvement of many stakeholders in its implementation, there is a risk of partners being inadequately prepared to employ the new approaches and coordinate with each other.	Minor	Rare	Minor	-Co-develop a comprehensive organogram with KFF and local stakeholders, including communities, to capture each entity's roles and responsibilities. The organogram will be easily accessible to everyone throughout the project, including to those outside of the project. -Project Coordination Meetings will be organised twice a month to manage delivery partners.	Minor
Risk 5 Given the novel nature of the project in Timor-Leste, there may be resistance from local stakeholders and a lack of buy-in for the implementation of the project.	Major	Unlikely	Major	-Meetings and trainings will be held regularly throughout the project to secure early buy-in from the community and maintain their confidence in the project. -Project coordination meetings with all stakeholders will be organised once every two months to update stakeholders on the progress of the project.	Minor

Risk 6 While open map data is crucial to support different initiatives, including seagrass conservation efforts and blue economy development efforts, local communities may not be inclined to share these data over privacy concerns.	Major	Unlikely	Major	-The project will build on KFF's existing initiatives and leverage their community links as key points of entry. Any educational activity will focus on sensitization of communities to the importance of open data. -Communities will be introduced to HOT's data protection policy. -HOT's ethical data framework will be leveraged.	Minor
Risk 7 Climate disasters have been steadily increasing in frequency and strength. As a Least Developed Country, Timor-Leste lacks the adequate infrastructure to manage the increasing climate disasters, which increases the risk exposure to local participants.	Minor	Likely	Minor	-Co-plan implementation of field activities with local stakeholders, including government and NGOs, and incorporate local knowledge (vernacular) to avoid periods of high climate and environmental risk. -Develop comprehensive planning of remote and field activities around the seasonal trends of the sites to ensure that the project can continue.	Minor

Q23. Project sensitivities

Please indicate whether there are sensitivities associated with this project that need to be considered if details are published (detailed species location data that would increase threats, political sensitivities, prosecutions for illegal activities, security of staff etc.).

⦿ Yes

Please provide brief details.

Map data of the seagrass habitats could accidentally include locational data of vulnerable species, such as the green sea turtles and dugongs which are listed by IUCN as endangered. While this data will be accidental and unlikely to be captured, HOT will delete this type of data upon data validation to prevent potential exploitation of these vulnerable species by malicious actors. Other locational data deemed sensitive by local communities in reviews will also be reviewed by HOT and KFF, and have its access limited to only key stakeholders.

Section 8 - Workplan

Q24. Workplan

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

Workplan - M4S Application
17/10/2024
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Section 9 - Monitoring and Evaluation

Q25. Monitoring and evaluation (M&E)

Describe how the performance of the project will be monitored and evaluated, making reference to who is responsible for the project's M&E. How will the project robustly evaluate the innovation to support its future application?

The project will align to HOT's Global Monitoring Framework. The Program Associate will be responsible for support in updating the M&E system, alongside the technical data team. The M&E associate will act as supporting staff to interpret all results into the final research report. A significant amount of time from HOT staff will be dedicated to recording and interpreting results received and uploading them either into our project-specific and locked tab in Airtable (for overall project results), as well as uploaded to OSM, OAM and Ushahidi for map data collected based on the ODK survey forms.

Results will be received either as online data (ODK, Ushahidi and Mapillary), or as physical data taken directly by KFF staff (attendance sheets, observation notes). Questionnaires will be conducted through a survey either online for trainings, and offline for meetings with community members.

A detailed monitoring plan will be established at the onset of the project. The monitoring plan will set deadlines of when to capture baseline data and monitor progress of the approach through a mixed methodology (mentioned in Question 15) that combines open and closed feedback, observations, user testing and data quality. This ensures both negative and positive impacts are captured qualitatively as well. These methods have been integrated throughout our project design and will be reflected as results in the final research report, with recommendations on scaling up the approach and its overall effectiveness. The following will be evaluated:

-Knowledge increases among trained stakeholders (KFF, conservation organisations, coastal communities) through pre- and post-training/meeting questionnaires
-Quality-check report of produced datasets in all field data collection from drones, survey form and mapillary
-Inclusivity and risk mitigation (risk assessment) on seagrass locations and tags
-User testing, co-design meeting notes (Mapillary, Ushahidi seagrass map & ODK survey form)
-Monitoring of downloads and user access on Ushahidi seagrass map
-Attendance sheets
-Observation notes and feedback

Total project budget for M&E (£) **(this may include Staff and Travel and Subsistence Costs)**	£[redacted]
Total project budget for M&E (%) **(this may include Staff and Travel and Subsistence Costs)**	[redacted]
Number of days planned for M&E	80

Section 10 - Logical Framework & Standard Indicators

Q26a. Logical Framework (logframe)

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

Logical Framework and Theory of Change - M4S Application
17/10/2024
06:58:42
pdf 259.02 KB

Impact:

Seagrass is actively protected and conserved by coastal communities in Timor-Leste

Outcome:

Improved awareness among local organisations and communities of seagrass locations, level of deterioration and of seagrass benefits in Timor-Leste.

Project Outputs
Output 1: Local organisations are trained in using open mapping tools to enhance capability and capacity
Output 2: Geospatial data on seagrass locations is generated and new participatory open mapping tools are tested
Output 3: Knowledge products are published and endorsed on a participatory open-mapping approach to seagrass conservation
Output 4: Educational activities on seagrass conservation increases awareness of coastal communities on sustainable fishing practices
Output 5: *No Response*

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 and 1.3 are contributing to Output 1.

1.1 Draft 3 syllabi for trainings on open-mapping (1 for Mapillary/OSM, 1 for drone usage and best practices in underwater imagery, and 1 for Ushahidi)

1.2 Host one Training of Trainers (ToT) for KFF staff on using OpenStreetMap (OSM) and Mapillary to collect

visual data

1.3 Host one Training of Trainers (ToT) for KFF staff on using Ushahidi to collect data for non-visual information (e.g: seagrass degradation)

1.4 Host one Training of Trainers (ToT) for KFF staff on drone usage and best practices to collect underwater imagery

1.5 3 trainings delivered by KFF staff to 3 local conservation organisations on Mapillary, OSM and drone imagery collection of seagrass data

2.1 Conduct an online data protection risk assessment to identify hazards and mitigations for community field data collection, including GESI considerations in data collection

2.2 KFF and HOT co-develop a tailored ODK survey form based on collected map data to support collection of non-visual imagery

2.3 Training delivered by KFF staff to local enumerators on Mapillary and survey form to collect data and upcoming field data collection

2.4 Community-led field data collection with 10 enumerators supported by KFF & HOT (including uploading imagery via Mapillary and sharing observations via Ushahidi on seagrass deterioration sites)

2.5 HOT and KFF staff conduct drone imagery field data collection along Metinaro coastline

2.6 Host one after action workshop on drone collected imagery with KFF and HOT staff to discuss quality of imagery results and feedback on drones

2.7 One co-design workshop with 10 enumerators to discuss: (1) field collection feedback, (2) GESI-inclusive map tags, and (3) GESI-considerations in data usage

2.8 Data validation and cleaning of collected datasets on OSM by HOT technical team

3.1 Use a mobile application (such as SeagrassSpotter, PlantNet, or other open-source) to identify species against mapped underwater images

3.2 Develop an Ushahidi Seagrass Map detailing locations of seagrass with inclusive tags, species and level of deterioration

3.3 Develop a final guidance document on the Ushahidi Seagrass Map, with recommendations on more areas to map in Timor-Leste

3.4 Design and disseminate 3 educational videos on seagrass benefits, including sustainable fishing practices

3.5 Research report finalised, including findings on all research collected and recommendations for approach integration and expansion

3.6 Research report disseminated through 2 online and in-person workshops, inviting government representatives and other conservation experts, including Blue Ventures

4.1 15 awareness-raising meetings led by KFF in communities to discuss seagrass degradation and prevention measures via sustainable fishing practices (including Ushahidi Seagrass Map user testing)

4.2 HOT to develop a roster list of local open mapping experts for KFF, disseminated to coastal communities

Q26b. Standard Indicators

Standard Indicator Ref & Wording	Project Output or Outcome this links to	Target number by project end	Provide disaggregated targets here
e.g. DI-A01: Number of people in eligible countries who have completed structured and relevant training	**e.g. Output indicator 3.4 / Output 3**	**e.g. 60**	**e.g. 30 non-indigenous women; 30 non-indigenous men**
DI-D04: Number of people with enhanced wellbeing	Outcome	600	300 female, 300 male, including 50 youth 18-24
DI-A03: Number of local or national organisations with enhanced capability and capacity	Output 1	4	4 Organisations with: 40 individuals; 20 female, 20 male
DI-C01: Number of best practice guides and knowledge products published and endorsed	Output 3	6	Products produced: Research report, Ushahidi Seagrass Map, Guidance document, 3x Educational videos
No Response	*No Response*	*No Response*	*No Response*
No Response	*No Response*	*No Response*	*No Response*
No Response	*No Response*	*No Response*	*No Response*
No Response	*No Response*	*No Response*	*No Response*
No Response	*No Response*	*No Response*	*No Response*
No Response	*No Response*	*No Response*	*No Response*
No Response	*No Response*	*No Response*	*No Response*
No Response	*No Response*	*No Response*	*No Response*
No Response	*No Response*	*No Response*	*No Response*
No Response	*No Response*	*No Response*	*No Response*

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

No Response

Section 11 - Budget and Funding

Q27. 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.

Budget - M4S Application (1)
17/10/2024
07:52:14
xlsx 72.62 KB

Q28. Alignment with other funding and activities

This question aims to help us understand how familiar you are with other work in the geographic/thematic area, and how this proposed project will build on or align with this to avoid any risks of duplicating or conflicting activities.

Q28a. Is this new work or does it build on existing/past activities (delivered by anyone and funded through any source)?

⦿ New Initiative

Please give details.

The project as an approach to be tested is new, however components of the approach builds upon the following projects:

-KFFs project funded by Kiwa Initiative from 2022 - 2025 for marine ecosystem restoration in Timor-Leste focusing on improving livelihoods for fishery communities. This includes restoring mangroves in MPA areas, including Hera and Atauro, and leading awareness raising sessions with local communities in Hera on their knowledge on seagrass and mangroves as important marine ecosystems.

-In Canoa de Tolda, Brazil (2022), HOT mapped a section of the San Francisco river, capturing above and underwater land shape images (3D drone monitoring) to create scenario maps during and after floods. Communities participated in drone mapping activities, were trained in how to operate drones and were able to pivot their craft selling to times of the year when flooding was minimal.

-Blue Ventures' ongoing work with the Seagrass and Dugong Hub for the 2030 seagrass breakthrough.

Q28b. Are you aware of any current or future plans for work in the geographic/thematic area to the proposed project?

⦿ Yes

Please give details explaining similarities and differences, and explaining how your work will be additional, avoiding duplicating and conflicting activities and what attempts have been/will be made to co-operate with and share lessons learnt for mutual benefit.

The Dugong and Seagrass Hub is funded by Global Environment Facility (GEF), and implemented by Blue Ventures and Conservation International in response to the 2030 seagrass breakthrough agreed upon at COP29. HOT and KFF have discussed with Blue Ventures about synchronising our approach as an actionable resource with the Dugong and Seagrass Hub and their community-led seagrass conservation efforts funded by DEFRA in Atauro Island. As such, we have garnered the support of Blue Ventures to sync our approach with their programming in order to collectively advance the 2030 seagrass breakthrough in Timor-Leste and beyond.

As our partners, KFF is also involved in a Kiwa Initiative funded project on Hera and Atauro Island, which are protected conservation areas, to restore and manage marine ecosystems, including coral reefs, mangroves and

seagrass. By directly upskilling KFF and providing them with the developed Ushahidi seagrass map, we can ensure this project will directly contribute to this initiative, and mapping of seagrass outside this project scope can continue in marine protected areas of Hera and Atauro Island.

Q29. Value for Money

Please demonstrate why your project is good value for money in terms of impact and cost-effectiveness of each pound spend (economy, efficiency, effectiveness and equity). Why is it the best feasible project for the amount of money to be spent? Please make sure you read the guidance documents, before answering this question.

The project demonstrates value for money by being efficient in balancing field activities with activities that are conducted remotely. The project's total budget of £157,401 is cost-efficient considering a coverage of almost 18 km of coastline. A similar project conducted by private sector consultants would be much more expensive.

Open mapping is a cost-effective and scalable way to collect data and build awareness with local communities. HOT uses free, open source tools that do not require expensive licenses, reducing technology costs. HOT's staff have the needed expertise in open-source mapping software (OSM, OAM), geospatial imagery, drone operation and evaluation. Therefore £63,091 (43%) of staffing costs will be directed to HOT. This kind of expertise usually requires a daily rate of £400-800 per person, and is not a widely-available skillset in Timor-Leste. Moreover, the funding for HOT covers training of trainers and the in-house production of all knowledge products and research.

Field expertise from KFF makes up £20,866 GPB (14%) of staffing costs to complete community-led project activities. The project aims to provide equity for local communities and KFF, therefore operating costs for meetings at a field-level will be £6,450 (4%) for KFF, higher than for HOT (£5,410, 3%). Local enumerators will also receive fuel/gas and internet stipends, as well as meals to support their efforts. The project will use KFFs office in Dili in order to go to/from data collection and community activities, minimising office costs and operational set-up.

Q30. Capital items

If you plan to purchase capital items with Darwin funding, please indicate what you anticipate will happen to the items following project end. If you are requesting more than 10% capital costs, please provide your justification here.

We plan to purchase two low-cost drones as part of the project in order to train local partners on drone use and capture accurate aerial imagery as well as phone casings for enumerators to capture underwater imagery. This amounts to less than 1% of total funding costs. The drone model is also sufficiently low-cost for KFF to purchase more and scale the project in the long-term.

These drones and phone casings will be passed to KFF at the end of the project period to be used for additional mapping in their conservation efforts within their current programs and to keep adding data to the developed seagrass map.

Considering the project extensively involves training, including drone training, KFF will be provided with the knowledge to carry out drone mapping beyond HOT's support.

Section 12 - Safeguarding & Ethics

Q31. Safeguarding

All projects funded under the Biodiversity Challenge Funds must ensure proactive action is taken to promote the welfare and protect all individuals involved in the project (staff, implementing partners, the public and beneficiaries) from harm. In order to provide assurance of this, projects are required to have

specific procedures and policies in operation.

Please outline how your project will ensure:

(a) beneficiaries, the public, implementing partners, and staff are made aware of your safeguarding commitment and how they can confidentially raise a concern,

(b) safeguarding issues are investigated, recorded and what disciplinary procedures are in place when allegations and complaints are upheld,

(c) you will ensure project partners also meet these standards and policies.

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

HOT's Code of Conduct follows IASC six core principles relating to sexual exploitation and abuse. As such, our project follows IASC by all HOT staff signing and adhering to HOT's Code of Conduct. Partner staff and consultants hired will also be required to sign this code of conduct during the project start-up phase.

HOT's protection policy will be adhered to as part of the project, which acts as a safeguarding policy. This protection policy will be shared with our partners KFF, as well as our whistleblowing policy and code of conduct signed as mentioned above. All HOT staff are previously trained in these policies, and will therefore disseminate this information to KFF during the project start-up phase.

HOT also has clear reporting lines when it comes to safeguarding outlined in our addressing misconduct & other grievances document. For misconduct, which relates to violations of our code of conduct and IASC principles, as well as safeguarding considerations outlined in HOT's physical security policy, violations should be reported directly to hr or direct managers. HOT's whistleblowing policy includes the same reporting matrix.

For community members and individuals in organisations wanting to report misconduct or any grievances, HOT has an anonymous reporting form that can be filled out confidentially that automatically escalates to HOT's central operations team. Community members participating as part of this project will be notified of this form prior to involvement in training, field data collection or activities through the established Whatsapp group and again reminded prior to data collection efforts.

Other policies which the project will follow include: information security as we are working primarily with data, and our conflict of interest and disclosure policy for hired consultants and partners.

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

Harry Machmud will act as HOT's safeguarding focal point.

Q32. Ethics

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

HOT's physical security policy outlines our adherence to UNOCHA's principles of neutrality and impartiality, as well as security policies of informed consent, do no harm, right of refusal, equality, shared responsibility and continuous improvement. These ethical principles are foundational to HOT as an organisation and will be implemented throughout the project through the following approaches:
-Informed consent from communities prior to participatory data collection, especially among the 10 selected enumerators;
-Following HOT's protection policy on ethical data informed by our data principles on open and accessible, useful

and usable, as well as inclusive and representative;
-A data protection risk assessment carried out at the onset of the project using HOT's data ethics and protection tool, to ensure ethical data principles and inclusivity considerations (including gender differences in data use) are investigated and integrated into the design of the project;
-All security policies will be enforced during project implementation, and communicated to our partner KFF prior to conducting any trainings with communities;
-Anonymous feedback forms provided to communities; and
-Co-design of seagrass map and contextualised tools with communities and KFF.

Section 13 - British Embassy or High Commission Engagement

Q33. British embassy or high commission engagement

It is important for UK Government representatives to understand if UK funding might be spent in the project country/ies. Please indicate if you have contacted the relevant British embassy or high commission to discuss the project and attach details of any advice you have received from them.

⦿ Yes

Please attach evidence of request or advice if received.

Humanitarian OpenStreetMap Team_British Embassy Jakarta Mail - Darwin Initiative Innovation Scheme
17/10/2024
07:11:07
pdf 339.69 KB

Section 14 - Project Staff

Q34. Project staff

Please identify the core staff (identified in the budget), their role and what % of their time they will be working on the project.

Name (First name, surname)	Role	% time on project	1 Page CV or job description attached?
Harry, Machmud	**Project Leader**	26	Checked
Nama Raj, Budhathoki	Project Supervisor	3	Checked
Honey Grace, Fombuena	Technical Data Lead	18	Checked
Bernard, Heng	Project Associate	19	Checked

Do you require more fields?

⦿ Yes

Name (First name, surname)	Role	% time on project	1 Page CV or job description attached?
Dinar, Adiatma	Technical Data Associate	10	Checked
Melai, Opeña-Basilio	Financial Lead	9	Checked
Alito, Rosa	In-Country Project Coordinator (KFF)	20	Checked
Elidio, Ximenes	In-Country Volunteer Coordinator (KFF)	30	Checked
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.

CVs for Key Personnel - M4S Application
17/10/2024
07:19:54
pdf 200.41 KB

Have you attached all project staff CVs?

◉ Yes

Section 15 - Project Partners

Q35. Project Partners

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

Lead Organisation name:	Humanitarian OpenStreetMap Team (HOT)
Website address:	https://www.hotosm.org/

	Humanitarian OpenStreetMap Team (HOT) became registered as a US-based 501(c) entity in 2015 as an international organisation that promotes the accessibility of open map data for all and uses OSM as a public good in times of disaster and development. HOT has nearly 15 years of experience engaging with communities on participatory mapping. We have mapped an area home to more than 900M people and have a network of nearly 700K volunteers.
Why is this organisation the Lead Organisation, and what value to they bring to the project? **(including roles, responsibilities and capabilities and capacity):**	HOT has developed a suite of mapping tools to lower barriers to data collection and use and that are designed to work in low resource settings. These include the Field Mapping Tasking Manager, Drone Tasking Manager, and Open Aerial Map, all of which will be used during this project. In 2021, we established our Asia-Pacific Open Mapping hub to support the localisation of our approach in the region. Our largest climate resilience project includes mapping flood and heat exposure across urban cities in the most vulnerable communities in four regions. In Asia pacific, this work is being conducted in slums in Dhaka, Bangladesh with World Vision as our partner. HOT therefore has the right expertise internally to carry out and lead this project, managing the project's accounting, monitoring and evaluation and overall governance of the project with key staff. HOT provides critical expertise in high-technology to help deliver this project to completion, which is difficult to find, costly and not readily available in Timor-Leste.
International/In-country Partner	⊙ International
Allocated budget (proportion or value):	[redacted]
Representation on the Project Board (or other management structure)	⊙ Yes
Have you included a Letter of Support from the Lead Organisation?	⊙ Yes

Do you have partners involved in the project?

⊙ Yes

1. Partner Name:	Konservasaun Flora e Fauna (KFF)
Website address:	https://www.facebook.com/87KFF

What value does this Partner bring to the project? **(including roles, responsibilities and capabilities and capacity):**	The value KFF brings to this project is providing the project with expertise in conservation, from a biological, ecological, social and cultural lens. In this project, KFF is responsible as the implementer in the field and is responsible for the continuity of all activities in the field. KFF endeavours to make this project a success and will continue to be responsible for the sustainability of the seagrass map created within communities beyond the project period. KFF has not seen or been able to participate in mapping activities, which are very rarely carried out on such a large scale in Timor-Leste. As such, this project provides an opportunity for KFF to become leaders in Timor-Leste's conservation for monitoring using open mapping, especially participatory open-mapping approaches. KFF has sufficient capacity to carry out field activities under this project with two dedicated key staff and five staff overall. KFF has existing community-awareness programmes on mangrove and coral reef conservation in the country, but none so far with seagrass. This project provides an opportunity to tailor our existing awareness-raising activities to communities on seagrass conservation and its benefits.
International/In-country Partner	⦿ In-country
Allocated budget:	[redacted]
Representation on the Project Board (or other management structure)	⦿ Yes
Have you included a Letter of Support from this partner?	⦿ Yes

2. Partner Name:	*No Response*
Website address:	*No Response*
What value does this Partner bring to the project? **(including roles, responsibilities and capabilities and capacity):**	*No Response*
International/In-country Partner	○ International ○ In-country
Allocated budget:	*No Response*
Representation on the Project Board (or other management structure)	○ Yes ○ No
Have you included a Letter of Support from this partner?	○ Yes ○ No

3. Partner Name:	*No Response*
Website address:	*No Response*
What value does this Partner bring to the project? **(including roles, responsibilities and capabilities and capacity):**	*No Response*
International/In-country Partner	◯ International ◯ In-country
Allocated budget:	*No Response*
Representation on the Project Board (or other management structure)	◯ Yes ◯ No
Have you included a Letter of Support from this partner?	◯ Yes ◯ No

4. Partner Name:	*No Response*
Website address:	*No Response*
What value does this Partner bring to the project? **(including roles, responsibilities and capabilities and capacity):**	*No Response*
International/In-country Partner	◯ International ◯ In-country
Allocated budget:	*No Response*
Representation on the Project Board (or other management structure)	◯ Yes ◯ No
Have you included a Letter of Support from this partner?	◯ Yes ◯ No

5. Partner Name:	*No Response*
Website address:	*No Response*

What value does this Partner bring to the project? **(including roles, responsibilities and capabilities and capacity):**	*No Response*
International/In-country Partner	◯ International ◯ In-country
Allocated budget:	*No Response*
Representation on the Project Board (or other management structure)	◯ Yes ◯ No
Have you included a Letter of Support from this partner?	◯ Yes ◯ No

6. Partner Name:	*No Response*
Website address:	*No Response*
What value does this Partner bring to the project? **(including roles, responsibilities and capabilities and capacity):**	*No Response*
International/In-country Partner	◯ International ◯ In-country
Allocated budget:	*No Response*
Representation on the Project Board (or other management structure)	◯ Yes ◯ No
Have you included a Letter of Support from this partner?	◯ Yes ◯ No

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

No Response

Please provide a combined PDF of all Letters of Support for all project partners or explain why this has not been included.

Letters of Support - M4S Application
17/10/2024
07:22:56
pdf 431.28 KB

Section 16 - Lead Partner Track Record

Q36. Lead Organisation Capability and Capacity

Has your organisation been awarded Biodiversity Challenge Funds (Darwin Initiative, Darwin Plus or Illegal Wildlife Trade Challenge Fund) funding before (for the purposes of this question, being a partner does not count)?

⦿ No

Please provide the below information on the Lead Organisation.

What year was your organisation established/ incorporated/ registered?	01 January 2010
What is the legal status of your organisation?	⦿ NGO
Other explained	*No Response*
How is your organisation currently funded?	HOT receives funding from private philanthropy, bilateral and multilateral donors, and fee-for-service contracts from the World Bank and similar organisations.

Describe briefly the aims, activities and achievements of your organisation. Large organisations please note that this should describe your unit or department.

Aims	HOT is an international team dedicated to humanitarian action and community development through open mapping. We work together to provide map data which revolutionises disaster management, reduces risks, and contributes to achievement of the Sustainable Development Goals.
Activities	Our activities include: -Training local people and organisations to collect geospatial data using basic smartphones or computers. -Developing technology tools that make it easy to map, validate, and analyse data. We prioritise tools that are open source and can be used with mobile devices to lower barriers.
Achievements	Our achievements include: -Mapping an area home to more than 900 million people at risk of disaster. -HOT's data is the one of the most downloaded datasets on the UN's Humanitarian Data Exchange. -Establishing four regional hubs during the period 2021-2023 to engage and support local organisations and communities.

Provide detail of 3 contracts/projects held by the Lead Organisation that demonstrate your credibility as an organisation and provide track record relevant to the project proposed. These contracts/awards should have been held in the last 5 years and be of a similar size to the grant requested in your application.

Contract/Project 1 Title	PhilAWARE

Contract value/Project budget (include currency)	[redacted]
Duration (e.g. 2 years, 3 months)	2 years
Role of organisation in project	Training, field data collection, validation and production of datasets for Pacific Disaster Center (PDC) with local community mappers as enumerators. All data was uploaded to OSM and used as a base map for the new PhilAWARE system.
Brief summary of the aims, objectives and outcomes of the project	PhilAWARE—a custom version of PDC's DisasterAWARE platform—was developed by the University of Hawaii's PDC in partnership with OCD, under USAID BHA funding. The system provides hazard monitoring, early warning and advanced modeling to provide critical impact and potential needs information to aid rapid response.
Client/independent reference contact details (Name, e-mail)	Victoria Leat, [redacted]

Contract/Project 2 Title	Crowd-Source Mapping for Disaster Management
Contract value/Project budget (include currency)	[redacted]
Duration (e.g. 2 years, 3 months)	2 months
Role of organisation in project	Training local communities in crowd-source mapping for disaster management in Timor Leste. Training data was used in PDC's inaSAFE regional early warning system.
Brief summary of the aims, objectives and outcomes of the project	The training was done as part of World Vision's core programming, funded by World Vision and in partnership with Simile to complement their disaster management work. As such, HOT launched the virtual introductory session on 15 July 2022, and the in-person training on remote-mapping from 2-4 August, field mapping on 6-9 August, and concluded the training on 11 August with data analysis with InaSAFE, a free software that uses spatial data to produce post-disaster scenarios for better planning, preparedness and response activities.
Client/independent reference contact details (Name, e-mail)	Orlando (Alani) Do Carmo De Araujo, [redacted]

Contract/Project 3 Title	Dhaka Thrive
Contract value/Project budget (include currency)	[redacted]
Duration (e.g. 2 years, 3 months)	1 year

Role of organisation in project	Map and create a data management system providing details of Mirpur District informal settlements and slum area characteristics.
Brief summary of the aims, objectives and outcomes of the project	World Vision Bangladesh and HOT aims to build community knowledge and data flows by catalysing open data ecosystems where local government, INGO, NGO, private sector, academia and communities would come together to map the most essential features of the developing cities of Asia-Pacific. In Dhaka, rapid urbanisation in areas like Mirpur has led to overcrowding, exacerbating public health risks and straining already limited infrastructure. Through participatory open-mapping, the project seeks to develop open map data of the slum settlements and gain a deeper understanding of its vulnerable areas and populations; supporting local stakeholders to make informed decisions on priority interventions.
Client/independent reference contact details (Name, e-mail)	Dr. Rahul Mathew Nimmagadda[redacted]

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

⦿ Yes

Section 17 - Certification

Q36. Certification

If this section is incomplete the entire application will be rejected.

Please note if you do not upload the relevant materials below your application may be ineligible.

On behalf of the

Company

of

Humanitarian OpenStreetMap Team and Konservasaun Flora e Fauna

I apply for a grant of

£145,315.00

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful.

(This form should be signed by an individual authorised by the applicant institution to submit applications and sign contracts on their behalf.)

- **I have enclosed CVs for key project personnel, a cover letter, letters of support, a budget, logframe, theory of change, Safeguarding and associated policies, and project workplan.**
- **Our last two sets of signed audited/independently verified accounts and annual report (or other financial evidence – see Finance Guidance) are also enclosed.**

Checked

Name	Nama Raj Budhathoki
Position in the organisation	Regional Director
Signature (please upload e-signature)	Certification & Signature - M4S Application 17/10/2024 07:41:28 pdf 74.93 KB
Date	17 October 2024

Please attach the requested signed audited/independently examined accounts.

HOT 2020 Audited Financial Statements (1)
17/10/2024
07:33:18
pdf 477.04 KB

HOT 2021 Audited Financial Statements (1)
17/10/2024
07:33:18
pdf 389.98 KB

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

Safeguarding and Associated Policies HOT - M4S Application
17/10/2024
07:33:39
pdf 3.24 MB

Section 18 - Submission Checklist

Checklist for submission

I have read the Guidance**, including the "Darwin Initiative Guidance", "Monitoring Evaluation and Learning Guidance", "Standard Indicator Guidance", "Risk Guidance", and "Finance Guidance".**	Checked
I have read, and can meet, the current Terms and Conditions **for this fund.**	Checked
I have provided actual start and end dates **for the project.**	Checked
I have provided the budget based on UK government financial years **i.e. 1 April – 31 March and in GBP.**	Checked
I have checked that the budget is complete**, correctly adds up and I have included the correct final total at the start of the application.**	Checked
The application has been signed by a suitably authorised individual **(clear electronic or scanned signatures are acceptable).**	Checked
I have attached the below documents to my application: • **a cover letter from the Lead Organisation.**	Checked

• a completed logframe **as a PDF using the template provided.**	Checked
• **a 1 page** Theory of Change **as a PDF which includes the key elements listed in the guidance.**	Checked
• a budget **(which meets the requirements above) using the template provided.**	Checked
• **a signed** copy of the last 2 annual report and accounts **for the Lead Organisation (or other financial evidence – see Finance Guidance), or provided an explanation if not**	Checked
• **a completed** workplan **as a PDF using the template provided.**	Checked
• **a copy of the** Lead Organisation's Safeguarding Policy, Whistleblowing Policy and Code of Conduct **(Question 31).**	Checked
• **a copy of the Lead Organisation's** Health, Safety and/or Security policy or Security Plan **(Question 31)**	Checked
• **1 page CV or job description for all the Project Staff identified at Question 34, including the Project Leader, or provided an explanation of why not, combined into a single PDF.**	Checked
• a letter of support from the Lead Organisation and partner(s) identified at Question 35, or an explanation of why not, as a single PDF.	Checked
I have been in contact with the FCDO **in the project country(ies) and have included any evidence of this. If not, I have provided an explanation of why not.**	Checked
The additional supporting evidence is in line with the requested evidence, amounts to a maximum of 5 sides of A4, and is combined as a single PDF.	Checked
(If copying and pasting into Flexi-Grant) I have checked that all the responses have been successfully copied into the online application form.	Checked
I have checked the Darwin website **immediately prior to submission to ensure there are no late updates.**	Checked
I have read and understood the Privacy Notice on the Darwin Initiative website.	Checked

We would like to keep in touch!

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

Checked

Data protection and use of personal data

Information supplied in the application form, including personal data, will be used by Defra as set out in the Privacy Notice, available from the Forms and Guidance Portal**.**
This Privacy Notice must be provided to all individuals whose personal data is supplied in the application form. Some information may be used when publicising the Darwin Initiative including project details (usually title, lead organisation, project leader, location, and total grant value).

Project Title: Monitoring for Seagrass Conservation through a Participatory Open-mapping Approach (**M4S**)

Project Summary: The Monitoring for Seagrass Conservation through a Participatory Open-mapping Approach (**M4S**) project will develop a novel participatory open-mapping approach with coastal communities in Metinaro, Timor-Leste to identify, protect and conserve seagrass ecosystems. Humanitarian OpenStreetMap Team (HOT) will partner with Konservasaun Flora e Fauna (KFF) to engage local communities to learn about the benefits of seagrass conservation, collect data about the status of current ecosystems and create drone imagery and open mapping tools to help monitor them.	**SMART Indicators (including disaggregated targets)**	**Means of Verification**	**Important Assumptions**
Impact: Seagrass is actively protected and conserved by coastal communities in Timor-Leste			
Outcome: Improved awareness among local organisations and communities of seagrass locations, level of deterioration	0.1 Number of local organisations and community members with improved awareness of seagrass locations	0.1 final results on all pre and post-questionnaires 0.2 Collected datasets and imagery	Stakeholders (local organisations and communities) are willing to contribute to or disseminate seagrass location data.

and of seagrass benefits in Timor-Leste.	by March 2027; 1540 (770 female, 770 male) 0.2 Number of seagrass locations and level of deterioration mapped and disseminated; 1 sub-district (Metinaro) by March 2027; 18 km of coastline 0.3 Number of coastal community members with improved awareness of seagrass benefits in Timor-Leste by March 2027, 1500 (750 female, 750 male, including 150 youth 18-24) 0.4 Number of coastal community members with enhanced wellbeing by March 2027, 600 (300 female, 300 male, including 50 youth 18-24)	0.3 Meeting attendance lists 0.3 Pre and post-meeting questionnaire results (given at the beginning and end of each meeting) 0.4 Observation notes and feedback	Stakeholder engagement is adequate and engaging, leading to stakeholder buy-in to strengthen the understanding of seagrass benefits to coastal communities as well as well-being benefits in sustainable fishing practices.
Outputs: **1. Local organisations are trained in using open mapping tools to enhance capability and capacity**	1.1 Number of organisations with enhanced capability and capacity by December 2025; 4 organisations (40 individuals; 20 female, 20 male)	1.1 Attendance list in each training Pre and post-training questionnaire results (given at the beginning and end of each training)	Stakeholders feel empowered and have the knowledge and confidence to effectively use participatory mapping tools and resources to collect accurate data.
2. Geospatial data on seagrass locations is generated and new participatory open mapping tools are tested	2.1 Number of participatory open mapping tools generated and tested (Mapillary, ODK survey form, drone imagery) by June 2026; 3	2.1 Tools refined: Mapillary, ODK survey form, drone imagery 2.2 Seagrass location datasets	Produced tools are accessible and/or accurate Conditions for collecting map data is satisfactory; no flooding or

	2.2 Number of geospatial datasets generated and strengthened on seagrass locations by June 2026; 6		intense tropical storms, adequate attendance and interest from enumerators
3. Knowledge products are published and endorsed on a participatory open-mapping approach to seagrass conservation	3.1 Number of best practice guides and knowledge products published and endorsed by March 2027; 6 3.2 Number of dissemination workshop attendees in March 2027; 50	3.1 Research report 3.1 Ushahidi Seagrass Map (incl. user-testing feedback) 3.1 Guidance document 3.1 Educational videos 3.2 dissemination workshop attendance list	Actions and tools are thoroughly documented leading to published knowledge products.
4. Educational activities on seagrass conservation increases awareness of coastal communities on sustainable fishing practices	4.1 Number of community members with improved knowledge on sustainable fishing practices by March 2027; 1500 (750 female, 750 male, including 150 youth 18-24) 4.1 Number of community members attending awareness-raising meetings by January 2027; 1500 (750 female, 750 male, including 150 youth 18-24)	4.1 Pre and post-meeting questionnaires 4.1 Observation and feedback notes 4.1 Educational video views 4.2 Meeting attendance list	Educational activities and outreach methodologies are anchored in context, leading to interest and participation from stakeholders.

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Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1. Each activity should start on a new line and be no more than approximately 25 words.)

1.1 Draft 3 syllabi for trainings on open-mapping (1 for Mapillary/OSM, 1 for drone usage and best practices in underwater imagery, and 1 for Ushahidi)

1.2 Host one Training of Trainers (ToT) for KFF staff on using OpenStreetMap (OSM) and Mapillary to collect visual data

1.3 Host one Training of Trainers (ToT) for KFF staff on using Ushahidi to collect data for non-visual information (e.g: seagrass degradation)

1.4 Host one Training of Trainers (ToT) for KFF staff on drone usage and best practices to collect underwater imagery

1.5 3 trainings delivered by KFF staff to 3 local conservation organisations on Mapillary, OSM and drone imagery collection of seagrass data

2.1 Conduct an online data protection risk assessment to identify hazards and mitigations for community field data collection, including GESI considerations in data collection

2.2 KFF and HOT co-develop a tailored ODK survey form based on collected map data to support collection of non-visual imagery

2.3 Training delivered by KFF staff to local enumerators on Mapillary and survey form to collect data and upcoming field data collection

2.4 Community-led field data collection with 10 enumerators supported by KFF & HOT (including uploading imagery via Mapillary and sharing observations via Ushahidi on seagrass deterioration sites)

2.5 HOT and KFF staff conduct drone imagery field data collection along Metinaro coastline

2.6 Host one after action workshop on drone collected imagery with KFF and HOT staff to discuss quality of imagery results and feedback on drones

2.7 One co-design workshop with 10 enumerators to discuss: (1) field collection feedback, (2) GESI-inclusive map tags, and (3) GESI-considerations in data usage

2.8 Data validation and cleaning of collected datasets on OSM by HOT technical team

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3.1 Use a mobile application (such as SeagrassSpotter, PlantNet, or other open-source) to identify species against mapped underwater images
3.2 Develop an Ushahidi Seagrass Map detailing locations of seagrass with inclusive tags, species and level of deterioration
3.3 Develop a final guidance document on the Ushahidi Seagrass Map, with recommendations on more areas to map in Timor-Leste
3.4 Design and disseminate 3 educational videos on seagrass benefits, including sustainable fishing practices
3.5 Research report finalised, including findings on all research collected and recommendations for approach integration and expansion
3.6 Research report disseminated through 2 online and in-person workshops, inviting government representatives and other conservation experts, including Blue Ventures
4.1 15 awareness-raising meetings led by KFF in communities to discuss seagrass degradation and prevention measures via sustainable fishing practices (including Ushahidi Seagrass Map user testing)
4.2 HOT to develop a roster list of local open mapping experts for KFF, disseminated to coastal communities