




EnvironMENTAL Consensus Conference

# CONSORTIUMS RESPONSE DOCUMENT

The environMENTAL Project

July 2024



# EnvironMENTAL Consortium Response to the Consensus Conference Report

## Executive Summary

The environMENTAL project has undertaken an extensive review of the recommendations provided by the Citizens Panel of the environMENTAL Consensus Conference (CC). This document outlines the project's commitments, actions planned and future steps to address the recommendations. By addressing the citizen's panel recommendations, the project aims to enhance the robustness, inclusivity and impact of the ongoing research. A summary of the actions and future steps are outlined in Table 1.

Table 1 Summary of Actions and Next Steps

S/No	Action	Due Date	Responsible Partner
	<b>Public participation</b>		
1	Establish a board of expert by experience (EbE).	31 December 2024	UoN (WP9)
2	Adopt the term experts by experience (EbE) to refer to people with lived experience of mental illness who engage with the project.	On going	UoN (WP9); Charité (WP2; WP4, WP10); Concentris (WP12);
3	Develop survey to provide anonymous aggregate of consortium members personal connection to mental health issues	March 31, 2025	UoN (WP9)
	<b>Scientific Research</b>		
4	Explore other avenues for applying sensitivity analysis. This will be discussed in collaboration with the EbE when formed.	May 31, 2025	Charité (WP2)
5	Identify terms defined in the consortiums DOA and collect these for publishing on the environMENTAL project's website	December 31, 2024	Charité (WP11)

6	As far as possible, the project will strive to always make it clear when the data and outcomes of the research are not generalisable to minority ethnic groups.	On going	Charité (WP1,2)
7	Clearly explain underlying assumptions made during data collection and to give some indication on how this impacts the research	On going	All
	<b>Data Collection and Management</b>		
8	No action required currently; however, the project is open to other opportunities for including data on the individual's engagement with the environment		
9	The project will explore other sources of dynamic urban data including sensor data as this can also help to improve the understanding of environmental factors influencing mental health.	On going	Charité (WP1, 2); FUB (WP2)
10	Explore other ways of incorporating environments beyond the physical such as data on online presence to better understand how this impacts mental health.	On going	Charité (WP1, WP6), UB (WP8)
11	Explore opportunities to integrate data from other regions by collaborating with other researchers/projects in regions and countries outside of Europe and to seek ways to integrate their research data into environMENTAL	March 31, 2025	Charité (WP1)
12	Actively seek opportunities to embed existing data from nature connectedness projects like those suggested in the CC report	July 31, 2025	Charité (WP6); Mannheim (WP6)
13	Continue to seek opportunities for collaborating with organisations that can provide access to automatically generated data.	March 31, 2025	Charité (WP1); UB (WP8)
14	Develop mechanisms for public involvement groups of the project such as the SB and EbE to continue to engage in ethical deliberations with consortium members involved in data management in the project.	March 31; 2025	UoN (WP9);

	<b>Project Impact</b>		
15	<p>Work with public involvement bodies such as the SB and EbE to formulate policy recommendations with a view to impact.</p> <p>Also, ensure diversity within its public involvement groups linked to the project by including diverse experts in such fields as mental health, architecture, urban planning and design as well as environmental expert.</p>	On going	Charité (WP10, WP11); UoN (WP9); EbE
16	Collaborate with the public involvement groups within the project (SB, EbE etc) to understand how project outputs can be translated into policy	On going	Charité (WP10, WP11); UoN (WP9); EbE
	<b>StreetMind App</b>		
17	Add a statement on the Terms of Use documents both on the website and the app explicitly stating that usernames will be visible to others	March 31, 2025	UKSH (WP3)
18	Ensure that positive emotions are included in all relevant assessment questions including that which is highlighted here.	March 31, 2025	UKSH (WP3)
19	Seek further opportunities to deepen collaboration with the SB and the EbE, including on disseminating activities for the streetMind platform.	July 31, 2025	UKSH (WP3)

## Introduction

The environMENTAL Consortium appreciates the dedication shown by members of the Citizen Panel for their dedicated involvement and valuable contribution to the environMENTAL Consensus Conference (CC). This document is an acknowledgement of the insights from the CC providing an outline of the projects plan action in response to the recommendations highlighted in the CC report. It signifies the projects commitment to actively consider and, as far as practical, to implement the suggestions provided to the extent possible. It also underscores the projects commitment to foster and nurture a dynamic feedback loop between the project and its stakeholders.

## Structure of the Response Document

The CC report developed by the citizens panel of the environMENTAL CC provides a set of recommendations covering the following 5 themes:

- Public participation
- Scientific research
- Data collection and management
- Project impact
- The streetMind App

To make it easy to identify how the project has responded to each of the recommendations provided in the CC report, the response from the environMENTAL consortium has been developed in 5 tables corresponding to the above themes of the recommendations of the CC report. Each table is organised into columns showing the 'recommendations from the citizens panel', the 'consortium response', and the 'actions' that will follow from this. A summary of key actions highlighting next steps can be found in the section on 'Summary and Next Steps'.

# Responding to the Recommendations of CC Report

## Public Participation

Table 2 Consortium Response to Recommendations on Public Participation

	Recommendation from Citizens Panel of CC	Consortium response	Action
1	<p>Establish formal structures and processes for public participation in the project including for example in the areas of:</p> <p>Methodologies, outcomes, support and training initiatives,</p> <p>Encourage public involvement as core of future hop-on project</p> <p>Facilitate public engagement in technology transfer activities.</p> <p>Include experts by experience in the development of StreetMind app and virtual reality platform</p>	<p>The recommendations concerning the establishment of formal structures and processes for public participation within the environMENTAL project underscore a collective recognition of the necessity for organised frameworks to engage various stakeholders effectively.</p> <p>The consortium has endeavoured to integrate public involvement from the project's outset through the formal structures such as:</p> <ul style="list-style-type: none"> <li>- the environMENTAL Stakeholder Board (SB) which is an interdisciplinary team currently made of 14 experts with competence in such areas as behavioural therapy, public mental health, neuroscience, stakeholder engagement, digital health, pharmaceuticals, research ethics, data protection, and AI ethics. This groups also include people with lived experience of mental health issues. They engage with the project quarterly on issues regarding project approaches, methodologies and outcomes etc of the ongoing research activities within the project.</li> <li>- the Ethics Advisory Board (EAB) which has 4 members is a subgroup of the SB and was formed to</li> </ul>	<p>Establish a board of expert by experience (EbE) by the end of 2024 to actively engage with project activities linked to digital assessment and intervention tools, particularly the StreetMind and Virtually Reality tools.</p> <p>To enable this, the following steps will be taken:</p> <ol style="list-style-type: none"> <li>1. Initiate recruitment process for EBE through targeted advertising and outreach within relevant communities</li> <li>2. Set deadline for applications.</li> <li>3. Shortlisting of candidates and invitation to the board</li> <li>4. Inaugural meeting of the board of experts by experience</li> </ol>

	<p>Regular evaluation meetings with appropriate citizens</p>	<p>provide advice on the ethics deliverables of the project. The expertise of members of this group covers such areas as artificial Intelligence, virtual reality, data protection, cybersecurity, research ethics /bioethics. Some members of the group also have lived experience of mental health issues.</p> <ul style="list-style-type: none"> <li>- Scientific Advisory Board (SAB).</li> </ul> <p>Currently, much of the public participation work is led by WP9 which focuses on (Responsible Research and Innovation) within the project. There's a clear call for formalised structures and processes to integrate experts by experience throughout various project activities, including technology transfer initiatives and the development of essential tools like the StreetMind app and virtual reality platform. As part of its commitment to continue to promote such engagement, the consortium has agreed to actively involving experts-by-experience in the development of streetMind app and virtual reality platform as well as technology transfer activities that the project may be involved.</p> <p>Structured and inclusive approach to public participation is essential for enriching the project's outcomes and impact and the project will develop structured approaches for engaging with experts by experience as well as other stakeholders as this is a valuable step toward enhancing their involvement and foster a greater sense of engagement in the activities of the project.</p>	<p>Like the EAB, this board will actively collaborate with the SB and will complement its work in public engagement.</p>
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		Similarly, future hop-on-projects will be encouraged to include public involvement activities their proposals to ensure that this processes for public participation is included in the core of their project proposal.	
2	Develop a common terminology within the project to delineate the individuals who act as public contributors to the project. The panel recommends “experts by experience” to refer to those with lived experience of mental illness. This differentiates such people from the general public and charities during public engagement activities.	The recommendations regarding use of the term experts by experience (EbE) is welcomed within the environMENTAL project and there's agreement on adopting the term to delineate individuals with lived experiences of mental illness or mental health service use for personal recovery of through caring for someone else. This will help to delineate such expertise from the general public highlighting its importance in fostering inclusivity and clarity within project engagements. This collective acknowledgment reflects a commitment to leveraging the unique insights and perspectives of those directly impacted by mental health challenges, ensuring their meaningful involvement and contribution across all phases of the project.	The environMENTAL project has agreed to adopt the term experts by experience (EbE) to refer to people with lived experience of mental illness who engage with the project.
3	Work with experts by experience to explore ways of encouraging research subjects to (continue to) engage in ongoing research.	The consortium recognises the significance of collaborating with experts by experience, to among other things, foster continued engagement among research subjects. To enable this, the consortium has agreed to incorporate a group of experts by experience into the ongoing public engagement activities of the project. Regular meetings will be organised with this group to discuss research progress, boost public engagement in ongoing activities and to explore ways of encouraging research subjects to continue to engage with the research.	See above

4	<p>Project structures : Increase the visibility of the project team's personal connection to mental health issues</p> <p>Ensure appropriate structures including experts by experience for monitoring, reviewing and management of data</p>	<p>The consortium acknowledges the potential benefits of disclosing personal connections to mental health issues, recognising its role in fostering transparency and deeper engagement with stakeholders, particularly those with lived experiences. However, the matter of the project team's personal connections to mental health issues is inherently personal, and as such, the consortium respects the individual autonomy of its members. While encouraging transparency, the consortium understands the sensitivity of this issue and the need for thoughtful navigation. Further discussions among consortium members is needed to address this matter with due consideration and sensitivity to privacy concerns.</p>	<p>The project will consider a survey to provide anonymous aggregate of consortium members personal connection to mental health issues</p>
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## Scientific Research

*Table 3 Consortium Response to Recommendations on Scientific Research*

	<b>Recommendation from Citizens Panel of CC</b>	<b>Consortium response</b>	<b>Action</b>
1	<p>Provide sensitivity analysis of the data to ensure that decisions are valid or supported</p>	<p>The consortium acknowledges the importance of the recommendations made regarding sensitivity analysis but also acknowledges the challenges involved, particularly in highly complex datasets where sensitivity analyses can be intricate. In fact, within the project sensitivity analysis has generally been applied in relevant models and their</p>	<p>The project already applies sensitivity analysis but other avenues for applying sensitivity analysis will be considered.</p>

		<p>predictions, but efforts will be made to make this more consistent.</p> <p>Thus, there's an agreement that sensitivity analysis should be performed where applicable, although its feasibility may vary depending on the research question and dataset characteristics.</p>	
2	Ensure sensitivity analysis is conducted on geospatial data to validate or bolster decisions from the perspective of the modifiable area unit problem.	While Geospatial data may not be relevant to all aspects of the work in the environMENTAL project, where applicable sensitivity analysis will be conducted, particularly in addressing the modifiable area unit problem. The consortium recognises that when applied appropriately, this approach will enhance the robustness of the findings of the ongoing research.	Sensitivity analysis to be conducted in relation to geospatial data where applicable.
3	Clearly define relevant terms including the distinction between mental wellbeing and severe mental illness.	The project has clearly defined many of the terms it uses in its DOA. These will be collected and clearly displayed on its website. With regards to the distinction between mental well-being and severe mental illness, it should be noted that is recognised as nuanced, and the consortium intends to approach this continuum with sensitivity. As shown in its DOA, the consortium has prioritised symptoms over labels to mitigate clinical diagnosis bias. For example, in relation to objective 4, the DOA states that the project will develop interventions targeting molecular and neurobiological mechanism of environmentally-sensitive symptoms of mental illness.	Identify terms defined in the consortiums DOA and collect these for publishing on the environMENTAL project's website

4	What can we say/not say about the data from minority groups within existing data?	The consortium acknowledges the importance of considering minority groups within existing data. They, however, recognise that minority groups may not always be adequately represented in datasets and stress the need to ensure that inferences drawn from data are robust and acknowledge limitations, particularly concerning minority groups. There are challenges in addressing issues related to minority groups within the context of the research, including data collection and analysis. There have been instances where attempts have been made to include minority ethnic groups in the research and this has proved to be challenging.	As far as possible, the project will strive to always make it clear when the data and outcomes of the research are not generalisable to minority ethnic groups.
5	When using existing data, it is important to clearly indicate the underlying assumptions that was made during its collection and how this impacts the research within environMENTAL	The project recognises the significance of transparency in delineating the underlying assumptions made during the collection of existing data and their implications for the environMENTAL research. There is therefore an emphasis on the need to clearly define and document these assumptions, particularly during the data harmonisation process, to ensure the credibility and reliability of subsequent analyses.	Clearly explain underlying assumptions made during data collection and to give some indication on how this impacts the research

## Data Collection and Management

*Table 4 Consortium Response to Recommendations on Data Collection and Management*

	<b>Recommendation from Citizens Panel of CC</b>	<b>Consortium response</b>	<b>Action</b>
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1	Ensure that the data includes the Individual level of engagement with the environment	The project has already made strides in incorporating various elements of the individual's engagement with the environment. For example, the survey in the StreetMind app features questions relating to the participants experiences and interaction with their surroundings enabling a better understanding of the individual level of interaction with their environment.	No action required currently; However, the project is open to other opportunities for including data on the individual's engagement with the environment
2	Inclusion of dynamic urban data sources and examples include sensor data, movement data, number of people in spaces	The StreetMind app already captures dynamic data which include movement patterns that can help to provide a more granular understanding about the dynamics in urban areas.	Explore other sources of dynamic urban data including sensor data as this can also help to improve the understanding of environmental factors influencing mental health.
3	Consider environments beyond the physical for example digital (e.g. social media presence, online presence or virtual environments), emotional, experiential, past experiences	Participants using the Virtual reality environment will enable the generation of some digital data and the StreetMind App already enables the capturing of current emotional experiences of the individuals participating in digital assessment survey.	Explore other ways of incorporating environments beyond the physical such as data on online presence to better understand how this impacts mental health.
4	Include data from other regions, for example, South America, Africa, Turkey etc	While acknowledging that the regions and countries suggested here are not part of the grant agreement of the project, the consortium has started to explore opportunities for collaboration with researchers and projects in different regions and to develop suitable models for responsible data sharing in these regions.	Explore additional opportunities to integrate data from other regions by collaborating with other researchers/projects in regions and countries outside of Europe and to seek ways to integrate their research data into environMENTAL

5	Consider the inclusion of existing data that is likely to be of value such as nature connectedness (e.g. Shinrin Yoku or data from the RESONATE project); interaction with animals; connection to food production, other ways of interacting with the world	Much of the research in the environMENTAL project relies on existing data. However, the project acknowledges that other sources of data do exist, and modalities will be explored for other sources of existing data including those on nature connectedness to better understand how this influences mental health. It must also be noted here that such activities often come with practical challenges including cost and the feasibility of integrating such data into the existing workflows within the project. In line with this, the project will initiate dialogue with the RESONATE project as suggested.	EnvironMENTAL will actively seek opportunities to embed existing data from nature connectedness projects like those suggested in the CC report
6	Consider responsible processes/tools for collecting data automatically from data subjects	Efforts are already being made to explore automatic data collection processes in a responsible manner. For example, discussion have been initiated with the FitBit team to gauge interest and potential collaboration in this regard. Nevertheless, the project will continue to explore other tools that can enable automatic and responsible data collection	The project is already exploring the possibility of collaborating with organisations that can provide access to such automatically generated data.
7	Ensure that the public is included in ethical deliberations to future-proof the data and make it available ethically and responsibly post-project	The consortium values the insights that public engagement brings to the project and will continue to ensure that the public is included in ethical deliberations on the ongoing research including those related to data collection and management. This activity will be included within the remit of the role of expert-by-experience when the group is formed to ensure that there is continued and meaningful engagement with the public on such issues.	Mechanisms will be developed for public involvement groups of the project such as the SB and EbE to continue to engage in ethical deliberations with consortium members engaged in data management in the project.

## Project Impact

Table 5 Consortium Response to Recommendations on Project Impact

	<b>Recommendation from Citizens Panel of CC</b>	<b>Consortium response</b>	<b>Action</b>
1	<p>Assemble team(s) of mental health and environmental experts (including architects, urban planners &amp; designers) with diverse backgrounds (lived experience, education and training) to:</p> <ul style="list-style-type: none"> <li>• Assist with the translation of research findings into new forms of interventions and treatment</li> <li>• Formulate policy recommendations with a focus on utilising existing mechanisms to ensure translation of research findings into practical applications</li> </ul>	<p>The project acknowledges the importance of collaborating with multidisciplinary teams comprising mental health and environmental experts with diverse background to discuss opportunities for translating research outcomes into intervention and treatment as we as policy. As pointed out in the section on public involvement, the project has already assembled several teams of independent experts including the SB, SAB, and the EAB. Where appropriate, the discussion with these groups will include topics on translation of research findings into intervention and treatment and policy recommendation.</p> <p>Also, there is recognition within the project of the need to involve experts by experience in such discussions, and plans are underway to extend this effort by also establishing an independent group of experts by experience in mental health issues.</p>	<p>The project will work with public involvement bodies such as the SB and EbE to formulate policy recommendations with a view to impact.</p> <p>Also, as suggested the project will continue to ensure that there is diversity within its public involvement groups it engages with by including diverse experts in such fields as mental health, architecture, urban planning and design as well as environmental expert.</p>
2	<p>Consider how project outputs can be translated into policy that meets the needs of the</p>	<p>As noted above, where appropriate the environmental consortium will organise meetings to discuss how the project outputs can be translated into policy. The</p>	<p>In collaboration with the public involvement groups within the project (SB, EbE etc) the project will consider</p>

	community, for example, usage of pollution penalties for research projects on mental health or promotion of environmentally sustainable tourism	discussions will involve the different stakeholder groups established by the project.	how project outputs can be translated into policy
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## The StreetMind App

*Table 6 Consortium Response to Recommendations on the StreetMind App*

	<b>Recommendation from Citizens Panel of CC</b>	<b>Consortium response</b>	<b>Action</b>
1	It must be made clear that the chosen username of people signing up to the StreetMind app becomes visible to the public.	The project acknowledges the importance of transparency regarding the visibility of username on the streetMind app. Users are already informed not to use their real names during registration, and this information is clearly stated in the informed consents forms.	To further enhance clarity, a statement will be added to the Terms of Use documents both on the website and the app explicitly stating that usernames will be visible to others
2	On the app, the question, “How do you feel at this location?” only has negative emotions. Ensure that positive emotions are also appropriately represented. (e.g. use the Plutchik wheel of emotions)	The project appreciates the feedback regarding the need to include positive emotions in the mood assessment feature of the streetMind app. Positive emotions will be incorporated and technical feasibility will be examined to assess the possibility of aligning the emotions with the Plutchik Wheel.	The project will ensure that positive emotions are included in all relevant assessment questions including that which is highlighted here.



3	<p>Include personalised recommendations for improving mental health in the StreetMind app, for example by tracking which activities lead to improvement and then providing suggestions based on that. Can data from the StreetMind App be used to suggest the best routes for commuting or locations that can help to improve mood?</p>	<p>The project recognises the importance of personalised feedback on the streetMIND app to improve mental health and effort is currently underway to enable participants to receive more personalised feedback within the app. For example, participants will soon have the capability to access the individual mood curves and emotional ratings for specific locations and routes, enabling them to compare and analyse their experiences. However, while we recognise the potential of data-driven route-recommendations, we must acknowledge the ethical and legal complexities involved. Personalised recommendations as those suggested pose challenges for ethical approval as they can be perceived as medical devices and may not be allowed from a regulatory standpoint in countries such as Germany.</p>	<p>There are currently no plans to implement such features in the streetMIND app due to the ethical and legal implications regarding health-related interventions as the app is not designed to serve as a medical product</p>
4	<p>Leverage stakeholder networks to promote awareness and the visibility of StreetMind app</p>	<p>In recognition of the important role that stakeholder networks might have in raising awareness of the streetMInd App, the environMENTAL project has included the stakeholder board in the dissemination strategy of the streetMInd platform. Several discussions have been had with this group during joint meetings to promote the app, foster engagement and to gather valuable insights. Notably, the SB actively participated in a survey on the streetMIND platform and provided feedback on the platforms structure and setup.</p>	<p>Currently, the dissemination strategy is being refined to maximise outreach and impact and opportunities will be explored to deepen collaboration with the SB and the EbE and to actively involve them in disseminating the platform to the broader public.</p>

## Summary

The above section has highlighted several actions that the project plans to initiate in response to the CC report. To address these, the following gives some indication on the next steps for the project in response to the recommendations.

1. **Incorporating Public Engagement in Ongoing Activities:** The project already has structures in place to facilitate such engagement. However, in line with the recommendation of the CC report, the consortium has committed to establishing a board of experts-by-experience by the end of 2024. This group will actively engage in project activities related to digital assessment and intervention tools, particularly the StreetMind app and Virtual Reality tools.
2. **Sensitivity Analysis on Geospatial datasets:** While sensitivity analysis is already being applied in relevant models within the project, effort will be made to ensure its consistency and applicability across different datasets. The next steps involve identifying additional avenues for applying sensitivity analysis. To implement this, the project will designate an individual or if necessary, a team for overseeing the sensitivity analysis process and ensuring its integration into relevant aspects of the research.
3. **Clarifying terminology and definitions:** the project is committed to clearly defining relevant terms used in its Data Management Plan and making these definitions publicly available on its website.

The next steps involve collecting and organising those terms defined in the DoA and publishing them in a user-friendly format on the environMENTAL projects website.

4. **Addressing minority representation in data:** recognising the importance of considering minority groups within existing data, the project aims to acknowledge limitations concerning minority representation in datasets used in its research. The next steps involve proactively communicating limitations of data from minority groups in relevant datasets to the public. To facilitate this and ensure that such considerations are systematically addressed, the project will develop guidelines for reporting on the representation of minority groups in the data.
5. **Transparency for underlying assumptions:** the project acknowledges that underlying assumptions have implications for research, and it is therefore important to delineate underlying assumptions made during the collection of data (including collection of existing data) and their implications for research.

The next step involves incorporating transparency into the overall data analysis strategies, ensuring that underlying assumptions are clearly defined and documented, particularly during the data harmonisation process.

To achieve this consistently throughout the project, standard operating procedures will be developed for documenting data assumptions and their impacts on research outcomes.

6. **Exploration of additional data sources:** The consortium aims to explore additional data sources, including nature connectedness, online presence, dynamic urban data, data from other regions and automatically generated data such as those from wearables to enhance understanding of environmental factors affecting mental health. The next step would involve actively exploring and integrating these additional data sources into the project, potentially through collaborations with researchers and projects in different regions and countries outside of Europe.
7. **Enhancing Transparency on the StreetMind App:** The Consortium acknowledges the importance of transparency regarding the visibility of usernames on the StreetMind app and plans to add a statement to the Terms of Use documents to clarify this aspect. The next step would be to draft and finalise the statement on username visibility and update the Terms of Use documents both on the website and the app accordingly.
8. **Incorporating Positive Emotions in Mood Assessment:** The Consortium has committed to incorporating positive emotions in the mood assessment feature of the StreetMind app and to examine the technical feasibility of aligning emotions with the Plutchik Wheel. The next step would involve implementing these changes to ensure that positive emotions are appropriately represented in all relevant assessment questions within the app.
9. **Refinement of Dissemination Strategy for StreetMind:** The Consortium is refining its dissemination strategy for the StreetMind app to maximise outreach and impact. The next step would involve deepening collaboration with the Stakeholder Board and the Experts by Experience group and to actively involve them in disseminating the platform to the broader public.
10. **Facilitate Multidisciplinary Collaboration for Translation of Research Findings and Policy Formulation:** As part of its public engagement activity, the Consortium has already assembled teams of independent multidisciplinary experts, including the SB, SAB and EAB and plans to further expand this activity by establishing a board of EbE. Effort will be made to ensure diversity within these groups by including experts in mental health, architecture, urban planning, design, and environmental experts, to enrich the discussions and perspectives. Following the establishment of the EbE, the next step would be to organise focused meetings with these multidisciplinary groups to better understand how project outputs can be translated into policy that meets the needs of their communities.