# Community engagement and involvement (CEI) Strategy

#### Context

The importance of meaningful engagement and involvement of patients, consumers, people with lived experience, carers, communities, civil society, and the public in health research is globally recognized. These stakeholders have a right to have a say in what is researched and how. Furthermore, they provide important perspectives and contribute valuable lived experiences, insights, and ideas at all stages of research.

Our Centre's mission is to transform the health of populations by conducting research that is relevant, responsive, and accountable. Meaningful involvement and engagement of communities underpins this mission. Therefore, we are dedicated to developing a research approach that is responsive to the unique needs and challenges of our community stakeholders.

Our goal is to co-produce knowledge, provide access to research findings, and enable community-led action for improved outcomes, both for individuals of communities and the planet. We recognize that our communities possess vital perspectives and contribute valuable lived experiences, insights, and ideas that are crucial throughout the entirety of our research process. We understand the diverse cultural and geographic contexts in which health issues arise, and the significance of understanding the intersecting experiences of marginalization and exclusion faced by those most affected. By incorporating this understanding, we aim to have a transformative impact through our research efforts.

We have incorporated Community Engagement and Involvement (CEI) as a core component of our research strategy, planning, implementation, and evaluation processes. Through this strategy, we strive to foster a collaborative and inclusive research environment that values and leverages the contributions of our communities.

This community engagement strategy document outlines our approach to involving and engaging communities in the research process. Together with our community stakeholders, we aim to coproduce knowledge that is responsive to their needs and ensures accountability.

# Our community, it's ecosystem and community engagement and involvement

#### Our community and it's ecosystem

In our Centre's context, communities have been defined as groups of those people who may have different characteristics but are affected by the research outcomes. These groups include patients, people living with NCDs (hypertension, diabetes, CVD, CKD, and COPD), and carers.

Each community also has its own ecosystem with which it seamlessly interacts. The community ecosystem includes other important stakeholder such as local leaders, civil society organizations, bureaucrats, NGOs, faith groups, youth and children, policymakers (municipal, regional, state, national), community health workers and other service providers.

Furthermore, we have identified vulnerable and at-risk groups for each multi-sectoral intervention community to ensure no one is left behind. This allows us to make our community engagement and involvement activities inclusive, ensuring that every individual's perspectives and contributions are recognized, valued, and supported. The following groups have been identified:

- Bangladesh Communities residing in coastal areas of Khulna and Satkhira districts especially
  vulnerable groups and families who are unable to pay for large amounts of privately supplied
  RO water and have limited capacity to store harvested rainwater.
- India (Food systems) Rural population, tribal communities, below poverty line population, women, children and elderly.
- India (Heat stress) Brick kilns workers, stone quarry workers, agriculture workers, construction workers and workers from these workplaces esp. pregnant women, workers with comorbidities.
- Indonesia Community members of 40 years and above, and people living with COPD, pregnant women living in affected air pollution sites, poor children living in affected air pollution sites.

#### Community engagement and involvement

We envisage community Engagement and Involvement as the process of working collaboratively with and through groups of people affiliated by geographic proximity, special interest, or similar situations to address issues affecting the well-being of those people.

In our context, community engagement and involvement will be integral to addressing the growing burden of environment-mediated non-communicable diseases (NCDs). It will involve the active collaboration between research teams and communities (and the ecosystem), leveraging collective resources to strengthen primary healthcare, co-produce multi-sectoral interventions, and empower communities at large.

#### Engagement continuum

We have developed a comprehensive framework (Adapted and modified from Principles of Community Engagement, ATSDR) that outlines various levels of engagement and involvement with our communities. This framework helps us maintain awareness of our current level of engagement across all CEI activities and work toward continuously moving up the engagement continuum, ensuring that our efforts are community-driven and genuinely collaborative.

Inform	Consult	Involve	Collaborate	Shared Leadership
Initial level of community engagement	Fair level of community engagement	Moderate level of community engagement	Deep level of community engagement	Final decision-making is at the community level
One way communication to inform	Bi-directional communication, flows to the community and then back, answer seeking	Bi-directional communication, participatory form of communication, typically researcher-led	Bi-directional communication and ideas may start coming from community to researchers	Strong bi-directional relationship
Provide information, literacy and builds awareness of the community	Gets information and feedback from community	Involves more participation with community on issues	Forms partnerships with the community on each aspect of the project from development to solution	Entities take ownership of the problem and work together as leaders to find and implement the solutions
Co-existing with community	Entities share information with each other	Entities cooperate with each other	Entities form bi-directional communication channels	Entities form strong partnership structures
Outcomes: Establish effective channels of communication and outreach with community	Outcomes: Connections developed and established	Outcomes: Visibility of partnership established with increased cooperation  *Adopted and modified from Principles of Commun	Outcomes: Partnership building, trust building	Outcomes: Broader health outcomes affecting broader community. Strong bi-directional trust built.

### **Objectives**

- 1. Foster meaningful engagement and involvement of community stakeholders:
  - a. Ensure that community stakeholders have a meaningful say in shaping research priorities, methodologies, and interventions at the nexus of health and environment change.
  - b. Promote active participation and inclusion of diverse perspectives, lived experiences, insights, and ideas from community stakeholders to inform decision-making in addressing health and environment-related challenges.
- 2. Empower community stakeholders to actively participate in research planning, implementation, evaluation processes and advocacy:
  - a. Provide opportunities for community stakeholders to be involved in all stages of research, including planning, implementation, evaluation, and mobilization for environmental health action.
  - Mobilize and empower communities to become influential agents of change, addressing the critical nexus of health and environment, and advocating for sustainable and equitable solutions.
- 3. Ensure accountability by co-creating knowledge that is responsive to the specific needs and aspirations of the communities:
  - a. Conduct research that directly addresses the priorities, concerns, and aspirations of the communities in the context of health and environment change.
  - b. Foster transparency and accountability in the research process by involving community stakeholders in decision-making, knowledge co-creation, and ensuring that research findings are shared and implemented in ways that benefit the community.
- 4. Promote access to research findings and enable community-led action for improved health outcomes:
  - a. Enhance accessibility and dissemination of research findings to ensure they reach community stakeholders, bridging the gap between science and action.
  - Support and enable community-led action based on research findings and empower communities to drive positive health outcomes in the context of environmental challenges.

# **Guiding Principles**

Our Centre's work will be driven by and delivered with the communities, for community benefit. These principles aim to empower individuals and communities to take an active role in decision-making processes and promote fair opportunities for all community members while valuing and embracing their diverse backgrounds, perspectives, and contributions. We will uphold the following principles:

- 1. Respect and Acknowledgment: We will treat individuals and communities with respect, acknowledging their knowledge and experiences.
- 2. Trust and Transparency: We will establish and maintain trust through transparent and honest communication and actions.
- 3. Cultural Safety: We will create a safe and supportive environment that respects and recognizes the cultural backgrounds, beliefs, and practices of community members.

- 4. Social Inclusion: We will create inclusive spaces that consider and address the intersectional identities and needs of all community members especially the identified vulnerable groups.
- 5. Reflexivity and Ethical Conduct: We will engage in critical self-reflection, being aware of our own biases and positionalities as researchers or team members. We will uphold ethical standards in all aspects of engagement, ensuring the protection of participants' rights and well-being.

## Key pillars

#### 1. Training and capacity strengthening

Our Centre's capacity strengthening strategy and community engagement and involvement strategy are closely intertwined. We are investing in enhancing the capacity of our researchers, while also prioritizing the capacity strengthening of communities. Our approach recognizes the importance of a two-way flow of knowledge and expertise, where researchers learn from communities and vice versa. We understand the importance of empowering communities to effectively participate in research, decision-making, and advocacy processes. By providing targeted training and resources, we aim to build the skills, knowledge, and confidence of community members, enabling them to actively contribute to addressing the challenges of NCDs and environmental change. This reciprocal approach recognizes that communities possess valuable insights, traditional and indigenous knowledge, and lived experiences that are essential for developing context-specific interventions and engagement approaches. By strengthening the capacity of communities, we foster a sense of ownership, agency, and self-determination, ensuring that their voices are heard, and their contributions are valued. By strengthening the capacity of both researchers and communities, we are building a collaborative framework that promotes mutual learning, understanding, and sustainable solutions for addressing the challenges of NCDs and environmental change.

#### For NIHR team

We will aim to equip all those (researchers including ECRs, NRLs and field staff) involved in research undertaken through the NIHR Centre for Environmental Change and NCDs with the background knowledge and practical tools necessary to effectively engage members of the community throughout the research lifecycle. This will ensure that research conducted through the NIHR Center for Environmental Change and NCDs is community-driven, inclusive, and responsive to the unique needs and perspectives of the communities it serves.

#### Trainings will include:

- a) Understanding of theories and core principles of community engagement in public health research. This will include exploring concepts related to community empowerment, participatory research, and co-creation of knowledge.
- b) Understanding of who different 'communities' are in the context of public health research. Emphasis will be placed on understanding the unique characteristics, needs, and perspectives of various communities, including marginalized or vulnerable populations.
- c) Recognition of the different ways community members can be actively involved in public health research. This includes community engagement and involvement in study design, data collection, analysis, interpretation, dissemination and advocacy and various methods and approaches to do that.

- d) Understanding of power dynamics in the research context and how to be mindful of this when engaging with community members in research. This will include strategies for addressing and mitigating power imbalances to ensure equitable partnerships with community members. The importance of cultural sensitivity and inclusivity will also be emphasized.
- e) Ability to engage sensitively with community members in research in a way that recognizes and adapts practices to suit different contexts and groups. Our teams will learn practical techniques for building trust, fostering open and respectful communication, and adapting practices to suit different contexts and diverse groups. Participants will explore strategies for overcoming potential barriers to engagement and promoting meaningful participation.

This structured training program will be delivered through a combination of online resources and masterclasses/lectures/trainings specifically focused on Community Engagement and Involvement (CEI) in research undertaken in LMIC contexts. The online resources will provide foundational knowledge and practical guidance on CEI principles and methodologies, while the masterclasses and trainings will offer interactive sessions led by experienced practitioners in the field. These sessions will dive deeper into LMIC-specific challenges and strategies for community engagement, allowing researchers and field staff to apply their knowledge in a contextually relevant manner. Moreover, the program recognizes the importance of co-creating trainings with communities and involving them to provide trainings on their context wherever relevant. This will not only ensure context-specificity of the content but also empower communities and promote their capacity to engage in research processes.

#### For Communities ecosystem

#### Community health workers (CHWs)

Recognizing the crucial role of healthcare professionals as trusted voices within their communities, we are committed to enhancing the capacities of community healthcare workers. Through comprehensive training and equipping them with necessary tools, we aim to strengthen the capacity of CHWs to understand, communicate, and promote the importance of the health-environment nexus.

To achieve this, we will integrate the following training programs for our community health workers:

- a) Training to understand the health-environment nexus: Throughout the program of work, we will emphasize the interconnectedness of health and the environment. CHWs will be equipped with knowledge and skills to understand the impact of environmental factors on health and advocate for sustainable practices that promote both individual and community well-being.
- b) Training to communicate health-environment nexus: CHWs will be trained to effectively communicate complex environmental health concepts, using language and examples that resonate with community members. This recognizes the crucial role of healthcare workers as trusted voices within their communities and the influence they can have in facilitating positive change and the promotion of sustainable practices.
- c) Enhance digital health platform utilization: We will train CHWs on our digital health platform (SMARThealth) that will allow CHWs to collect and manage data on the health-environment nexus. This will enable them to track and monitor environmental factors and their impact on community health, fostering evidence-based decision-making and targeted interventions.
- d) Trainings for data collection for our multi-sectoral interventions: We will provide training on data collection methods and tools for our multi-sectoral interventions. This training will

enable community health workers to effectively collect data and engage with community members in a meaningful and inclusive manner. By involving community members in data collection and decision-making processes, CHWs can ensure that the unique needs and voices of vulnerable groups are represented in health promotion activities related to the health-environment nexus.

#### Community members

We aim to empower community members (including a focus on children) through various trainings and activities. These include:

- a) Concept seeding exercise: We will explain project objectives in a simplified manner to ensure community members understand and can actively contribute to research activities and interventions.
- b) Co-production workshops: Community members will collaborate with researchers and stakeholders to co-produce interventions. They will contribute their insights, experiences, and skills to the design and implementation of interventions. They will also actively participate in developing culturally appropriate and relevant IEC materials.
- c) Creative education: Through activities such as theatre, sports days, festivals, cultural gatherings, and folk songs, we will help community members understand the connections between health and the environment. These experiences will enhance their knowledge and advocacy skills.
  These will be especially important for engaging and involving children and young people. Through our grassroots NGO partners, we will work with children to raise their awareness about the intersection of health and environment, create safe spaces for them to contribute to policy dialogue, and support them in advocating for their rights to a healthy future.
- d) Structured trainings and employment opportunities: We will provide training and employment in roles like surveyors, peer educators, trainers, and data collectors. This will promote economic empowerment and sustained engagement.
- e) Knowledge sharing and dissemination workshops: Community members will have the opportunity to share their experiences, best practices, and lessons learned in workshops that focus on knowledge sharing and dissemination.

Training resources developed for all activities will be available for communities for further use and wider dissemination within and beyond the consortia.

#### **Policy Makers**

We plan to incorporate the following activities and approaches to enhance the knowledge and skills of policy makers in effectively engaging with research evidence, understanding the importance of community engagement, and utilize research findings to inform policy development and implementation.

- 1. One-on-One Meetings for Understanding Priorities: We have been conducting one-on-one meetings with policy makers to understand their priorities, current understanding of the health-environment nexus, and any challenges they may face in utilizing research evidence in their decision-making processes. These meetings will provide an opportunity to tailor the training content and address individual needs and concerns.
- 2. Sensitisation of Health-Environment Nexus: We will sensitize policy makers to the interconnectedness of health and the environment emphasizing the impact of environmental factors on public health outcomes especially non-communicable diseases and highlight the role of evidence-informed policies in addressing these challenges.
- 3. Sand pit Exercise: We will engage policymakers by simply explaining project objectives and collaborate with them to brainstorm and discuss potential policies related to the health-

- environment nexus. This exercise will foster creative thinking and collaboration with policymakers.
- 4. Holding Round Table Events and Policy Seminars: We will organize round table events and policy seminars that bring together policy makers, researchers, community representatives, and other stakeholders. These events will serve as platforms for sharing research findings, discussing policy implications, and promoting dialogue and collaboration between different actors involved in the health-environment nexus.
- 5. Recognizing the Value of Community Engagement: Throughout our work, we will be emphasizing the importance of considering community perspectives, needs, and priorities to ensure that policies are relevant, acceptable, and feasible.

#### 2. Advocacy and Policy engagement

As part of our comprehensive community engagement strategy, we understand and prioritize the significance of advocating for policy changes at both the global and national levels along with our Public Advisory Board (PAB) members. By actively participating in international forums such as the Conference of Parties (COP), the G20, the World Health Assembly (WHA), and the WHO civil society working group on climate change and health, we aim to proactively advocate for the recognition and prioritization of the critical nexus between health and the environment in global policy discussions. At the global level, these platforms provide us with invaluable opportunities to influence research agendas and push for policy changes that address the complex interconnections between health and the environment.

In addition to our global advocacy efforts, we also recognize the importance of advocating for policy changes at the regional level. Regional advocacy allows for a more targeted approach to addressing the specific challenges and opportunities within a particular geographic area. Through regional advocacy, we aim to work closely with regional organizations, governments, and stakeholders to influence policies that effectively address the critical nexus of health and environment within the region. Examples of regional strategies or forum??

This section outlines key advocacy asks at both the center level and country level, focusing on addressing the critical nexus of health and environment.

#### Centre level:

1. **Advocacy ask:** We call for increased research and funding to address the critical nexus of health and environment.

How will the Centre contribute: As a Centre of excellence on health and climate in LMIC, our commitment is to advance knowledge and understanding of the complex interconnections between human health and the environment. Through dedicated research efforts, we will delve deep into this nexus, uncovering vital insights and developing innovative solutions to tackle pressing challenges. In addition, we are dedicated to building research capacity within the region, fostering collaboration, and empowering local researchers to drive impactful change. By identifying gaps and areas of further research, we aim to inspire targeted advancements that will inform evidence-based policies, interventions, and practices.

2. **Advocacy ask:** We call for the mobilization and empowerment of communities to become influential agents of change at the critical nexus of health and environment.

#### How will the Centre contribute:

- a) **Capacity strengthening**: The work of the Centre will contribute to strengthening the capacities of communities, especially:
  - a. Children Through our grassroots NGO partners, we will work with children to raise their awareness about the intersection of health and environment, create safe spaces for them to contribute to policy dialogue, and support them in advocating for their rights to a healthy future.
  - b. Community healthcare workers Recognizing the crucial role of healthcare workers as trusted voices within their communities, we are committed to enhancing the capacities of community healthcare workers. Through comprehensive training and equipping them with necessary tools, we will enable effective communication of the importance of the health-environment nexus. This, in turn, facilitates positive change and the promotion of sustainable practices.
- b) Drive innovations in community participation: We will pioneer new methods and participatory approaches for enabling co-production and strengthening community capacities. By fostering a collaborative and inclusive environment, we will create opportunities for communities to contribute their unique perspectives, knowledge, and expertise.
- c) **Promote co-production and cultural preservation**: Communities hold valuable indigenous knowledge of the environment and ecosystem that has been passed down through generations. By supporting and preserving this cultural heritage, we will enable communities to draw on this knowledge and incorporate it into sustainable solutions.

Country level: The work of the Centre will contribute towards policy change at national or state level

3. Advocacy ask in India: We call policy makers to prioritize sustainable diets that not only reduce the risk of non-communicable diseases, but also have a positive impact on the environment. /OR policies must prioritize sustainable diets, support local food systems and promote equitable access to healthy, affordable and nutritious food. ?

Needle is already moving – incorporating millets etc; why wheat vs millets; implementation/yield of crops..

Targeted at Millets ...

#### **How will Centre contribute:**

We are committed to supporting policy makers in understanding the critical role of sustainable food systems in promoting both human health and preserving our planet. To achieve this goal, we will provide evidence-based research and recommendations to help policy makers understand the importance of sustainable food systems. As part of our efforts, we will showcase successful case studies, such as kitchen gardens, to highlight innovative approaches that can contribute to the promotion of sustainable food systems and diets. By sharing these examples widely, we will also inspire and empower communities to take action and drive positive change.

4. **Advocacy ask in Indonesia**: - We call policymakers to prioritize actions aimed at reducing plastics burning, reducing plastics usage, and implementing policies to prevent the dumping of plastics waste from other countries

5. **Advocacy ask in Bangladesh:** We call policymakers to prioritize actions for mitigating drinking water salinity in coastal areas through ensuring safe drinking water, implementing sustainable and environment friendly technologies.

#### **How will Centre contribute:**

Bangladesh Centre is eager to support policymakers through generating evidence-based solutions for mitigating drinking water salinity that impact in cardiovascular health. We will initiate knowledge sharing dialogue with policy makers for disseminating best practices that are geographically and environmentally acceptable.

#### 3. Partnerships at grassroots level

Partnerships will be crucial for the success of community engagement and involvement efforts. By leveraging strong links with existing networks and organizations, such as grass-roots NGO partners and community networks, we will foster impactful and sustainable actions, broaden our reach, and scale up future interventions.

In particular, these partnerships will play a central and joint leadership role in knowledge mobilization and advocacy activities. We will involve NGO partners such as CINI, Chaupal, WALHI, NEXUS Foundation, PERCIK, and ECOTON Foundation throughout all research phases, benefiting from their on the ground expertise and networks. Their involvement will be critical in advocating for reduced environmental risks, mobilizing resources for our research, and facilitating knowledge building and exchange.

Furthermore, these NGO partners will also play a pivotal role in community capacity strengthening, supporting local communities in building the necessary skills, knowledge, and resources to understand and co-produce sustainable solutions to address environmental and health challenges effectively.

By establishing strong and collaborative partnerships with these organizations, we will maximize the impact of our CEI strategy by combining our expertise and resources with their on-the-ground experience and community relationships. This collaborative approach will ensure that interventions are more contextually appropriate, sustainable, and driven by the needs and aspirations of the communities themselves.

The partnerships will also provide opportunities for mutual learning and capacity strengthening, allowing for a more holistic and inclusive approach to community engagement. Through shared decision-making processes and co-creation of interventions, we will develop innovative solutions that are sustainable.

#### 4. Knowledge sharing and learning

To foster a culture of knowledge sharing at our Centre, we will prioritize collaboration both internally and with our communities. Our strategies include:

- Organizing regular combined meetings of our CEI teams to promote shared learning and exchange experiences. During these meetings, teams will present innovative co-creation methods and discuss challenges and solutions together.
- Ensuring cross-pollination of ideas and perspectives by involving country Public Advisory board (PAB) chairs in our Centre's PAB meetings.
- Sharing knowledge products, such as reports and research findings, in simplified formats and local languages to disseminate valuable insights to our communities and NGO partners.

- Establishing 'Community Hubs' led by trained CHWs/PLWNCDs, fostering knowledge sharing among stakeholders involved or interested in our work and identifying effective coproduction models.
- Our research theme 3 focuses on understanding the integration and effectiveness of CEI.
   Through detailed process evaluations, we will identify barriers, enablers, and mechanisms for continuous feedback, ensuring impactful long-term CEI.

Strong connections with NGO partners and community networks along with our research theme 3 will enable us to deliver CEI shared learning across and beyond our consortia.

By implementing these strategies, we aim to create a dynamic and open knowledge-sharing environment that encourages innovation and contributes to positive community outcomes. For our detailed knowledge management strategy, please refer to SECITION XX

#### 5. Monitoring, evaluation and learning

Research on CEI- CEI theme 3 (high level outcomes )

Laura to add? Combine with section below or keep as a separate section

#### MEL Framework – CEI

We have developed a detailed CEI MEL framework and plan (refer to section XXX) through which we aim to ensure the quality, impact, and long-term success of our community engagement and involvement activities. We will be collecting quantitative and qualitative data on CEI indicators throughout the grant period. Our framework will be further refined with input from our Public Advisory Board.

Key elements of our plan include:

- a) Continuous monitoring: This will allow us to monitor the implementation of our CEI initiatives and make necessary adjustments to strengthen our efforts.
- b) Data-driven decision-making and impact assessment: By collecting and analyzing data on the effectiveness and impact of our CEI activities, we aim to support evidence-based decisionmaking. This will enable us to make informed choices on resource allocation, program adjustments, and future initiatives and and provide insights into the outcomes and impacts achieved.
- c) Accountability and transparency: We value accountability and transparency in our CEI efforts. By providing clear data and evidence on the outcomes and impacts of our initiatives, we aim to improve accountability to stakeholders, partners, and the communities we serve. This will enhance transparency in our operations, fostering trust and engagement with all stakeholders involved.
- d) Incorporating learnings: We recognize the importance of continuous learning and improvement. Lessons learned from monitoring and evaluation activities will be carefully analysed, documented, and incorporated into the design and implementation of future CEI initiatives. This iterative process will help us enhance the effectiveness, efficiency, and sustainability of our CEI strategies.

# How/Operations

#### Our CEI team

As the Centre undertakes the development and implementation of a complex, multi-site, transdisciplinary research program alongside extensive research capacity building and community

engagement activities, it will involve coordinating research teams and groups across various research institutions across the three countries. A dedicated team of experienced professionals with deep knowledge of the local context with centre level coordination has been put in place to establish the community engagement and involvement work.

At the center level, the CEI lead is responsible for the strategy and coordinating CEI activities across the three countries. Meanwhile, at the site level, CEI managers are responsible for leading the implementation of CEI activities within their respective countries. These managers play a crucial role in ensuring effective community engagement and involvement at the local level.

#### Governance

#### **Public Advisory Board**

We have established a Public Advisory Board (PAB) composed of independent individuals who possess a comprehensive understanding of environmental change and health issues. The role of the PAB is to ensure that our centre's work is community-centred, delivering benefits to the communities, and to hold the CEI team accountable for prioritizing community needs.

The members of the PAB have various responsibilities, including:

- Provide strategic advice on shaping the centre's CEI strategy and providing advice on how the strategy will be delivered.
- Advise on the centre's CEI measures of success, periodically reviewing progress towards goals.
- Liaise with and review the activities of country-level PABs.
- Provide guidance to ensure communities are sufficiently involved or engaged and work with the CEI team to find ways to meaningfully involve communities.
- Support the identification of relevant civil society, policy and community stakeholders and facilitate connections wherever feasible.
- Contribute to a regular update to the External Advisory Board via its Chair and Deputy Chair.
- Advocate on behalf of the community, including promotion of greater attention and sensitivity to the needs of disadvantaged and vulnerable groups.
- Contribute to external facing duties, such as communications and advocacy efforts furthering the centre's work on addressing the dual challenges of NCDs and global environmental change.

Given the critical importance of CEI in our centre, we have implemented a multi-tier approach that includes the establishment of PABs at both the central and site levels. This structure ensures that community perspectives and priorities are integrated into our work throughout the centre.

#### Centre Level PAB

The Centre PAB will be an independent group comprised of 10-15 members of the public. As this group serves at the Centre level, all members have broad understanding of environment change and health issues in the low and middle income country context beyond one particular country for example country CSO/NGO organisations, activists, advocates, journalists, formal bureaucrats, teachers, sociologists, lawyers, economists, parliamentarians etc. The group's membership will have members drawn from across these groups, the three focus countries and it will be gender balanced. Representatives should be able to represent/speak to the populations targeted in/to benefit from the research interventions (heat, water salinity and air quality)

#### Site Level PAB

The site PABs will be an independent group comprised of 10-15 members of the public from each site/ country. As this group serves at the site level, all members have broad understanding of environment change and health issues in their country's context for example regional/ national CSO/NGO organisations, activists, advocates, journalists, formal bureaucrats, teachers, sociologists, lawyers, economists, parliamentarians etc. The group's membership will have members drawn from across these groups, respective countries and it will be gender balanced. Representatives should be able to represent/speak to the populations targeted in/to benefit from the research interventions (heat, water salinity and air quality)

#### Operations

#### CEI embedded across teams

We have integrated CEI into our research, monitoring, evaluation, learning (MEL), research capacity strengthening (RCS), and knowledge management (KM) processes. The CEI team closely collaborates with all teams to ensure meaningful community engagement throughout the research cycle and build sustainable and scalable systems and processes.

#### Regular meetings with country CEI teams and among all country CEI teams

To ensure effective communication and coordination, we hold regular catchups with each country CEI team and all country CEI teams together. In these meetings, we discuss progress, update the CEI tracker, identify challenges and support required, and plan the way forward. Additionally, knowledge exchange and shared learning is prioritized in cross-country meetings. These meetings occur every two months to ensure effective communication and course correction when required, leading to effective and sustainable community engagement throughout the project cycle.

#### Customised CEI tool: CEI activity planning, tracking, monitoring, and evaluation

We have custom developed a tool to plan, track, monitor and evaluate our community engagement work. The tool captures wide range of data for each CEI activity that is being conducted by any of the partner institutions across the Centre. By continuously recording CEI activities using this tool we will be able to create a comprehensive list of all activities which will not only help us in tracking and monitoring the progress but will also help in any required course corrections.