## NIHR

Global Health Research Centre for Non-communicable Diseases and Environmental Change

#### Vision of the Centre:

- To be a Centre of Excellence for high-quality, world-leading inter-disciplinary implementation research, research capacity strengthening and community engagement on the intersection of non-communicable diseases (NCDs) and global environmental change in low- and middleincome countries (LMICs).
- Collaborates with a wide range of stakeholders and local communities to strengthen impact on advocacy, policy, and health equity outcomes.

#### Background:

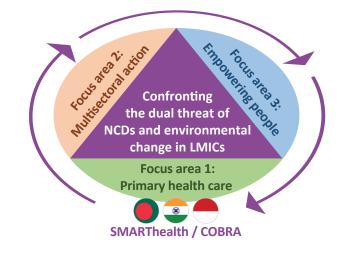
- Global environment change is the biggest threat to human health in the 21st century.
- Populations in Bangladesh, Indonesia and India are amongst the most vulnerable to this threat.
- Salinity in drinking water across coastal belts has been associated with increased blood pressure and urinary protein excretion, progressive kidney disease, and (pre)eclampsia and gestational hypertension in pregnant women.
- Unregulated burning of plastic waste releases harmful chemicals such as Dioxin, which dangerously pollute the environment and lead to negative health outcomes such as chronic lung disease, heart diseases and cancers.
- An increasing intake of carbohydrates, rich diet and lack of dietary diversity are risk factors for multiple cardiometabolic diseases.

#### **Project cycle**

2022-2027

#### Community engagement and involvement (CEI)

Effective and sustained CEI underpins our mission to transform the health of populations through relevant, responsive and accountable research. The communities we engage with will provide important perspectives and contribute valuable lived experiences, insights and ideas at all stages of our research.



#### Research capacity strengthening (RCS) strategy

- State-of-the-art RCS framework with tailored support at individual, institutional & network levels.
- Establish global research consortium with focus on emerging NCD/environmental change threats.
- Inter-disciplinary research training for gender equity (PhD, post-doctoral, new research leaders).

#### **Multisectoral interventions**

- 1. Coastal water salinity and hypertension
- 2. Leveraging food aid for NCD prevention
- 3. Plastics burning and air pollution

#### **Intended impact**

- Enhanced health equity, wellbeing and environmental sustainability across Asia.
- Strengthened research infrastructure for generating high-quality evidence on NCDs in populations most vulnerable to environmental change.
- Mobilised CEI capability to ensure evidence, advocacy and policy action is community-centric and benefits the most vulnerable.
- The Centre will contribute towards to the following United Nations Sustainable Development Goals:







3. Good Health 5. Gender & Well-Being Equity

10.Reduced 13.Climate Inequalities Action 17. Partnerships for the Goals

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#### Focus area 1:

### Strengthening primary health care (PHC) through a digital platform

- Establish a common data platform across Bangladesh, India and Indonesia that can comprehensively capture community environmental risks, behavioural risk factors, and disease management.
- Expand existing PHC strengthening strategies strategies (COBRA-BPS in Bangladesh, SMART*health* in India and Indonesia), leveraging digital technologies, frontline health workforce and community engagement, to incorporate environmental risks and a broader range of disease conditions using a community co-design approach.
- Conduct a large-scale implementation and evaluation of the comprehensive PHC strategy to improve outcomes in people at high risk of NCDs.

#### Focus area 2: Multi-sectoral interventions

• **Bangladesh:** Identify and test cost-effective, sustainable options to reduce salinity in the water supply in Khulna and Satkhira districts – targeting hypertension, cardiovascular disease and chronic kidney disease.

- Indonesia: Test a range of multi-sectoral interventions to reduce exposure to air pollutants caused by the burning of plastic waste in Malang district – targeting cardiovascular disease and chronic obstructive pulmonary disease.
- India: Implement and evaluate environmentally sustainable changes to food aid baskets to improve dietary diversity for NCD prevention in two states – targeting diabetes and cardiometabolic disease.

#### Focus area 3: Empowering people and communities

- CEI activities will be key in the evidence-to-policy process in each of the research focus areas to identify opportunities for strengthening impact outcomes.
- CEI processes in co-production and collaborative engagement activities conducted in focus areas 1 and 2 will be evaluated to determine how they have been applied and the effectiveness of implementation.
- These findings will be used to plan the most effective ways to drive future CEI in research, advocacy and policy in the region and support the next generation of community activists in health and environmental community engagement.

#### Partners & collaborators:

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### Imperial College London







#### Contact:

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