

## Introduction

Icddr,b (International Cholera and Diarrhoeal Disease Research, Bangladesh) was established in Dhaka in the 1960s as the South-East Asia Treaty Organization (SEATO) Cholera Research Laboratory. In 1978 the current name of icddr,b was adopted together with the expansion of its research focus into multiple infectious diseases, maternal and neonatal health and other threats to public health including health consequences of climate change. Through its 50 years of high-quality research into public health, icddr,b has maintained its commitment to evidence-based solutions that can deliver significant public health benefits at low cost to those living in poverty and it has received numerous national and international acclaim such as Gates Award for Global Health and Independence Day Award, Bangladesh's most prestigious national award.



## Objectives for Bangladesh Challenge

Since 2012, icddr,b has been monitoring impacts of climate change on local health in the coastal areas of Bangladesh.<sup>1</sup> In 2014, icddr,b published a paper concluding a “significantly higher probability of high salt intake among housewives and those living in the coastal area” compared with the people who lived in hilly areas, leading to high blood pressure and a higher rate of miscarriage among women in the coastal area. This necessitates a more comprehensive survey of the salinity in the underground water of the coastal area and Bangladesh Challenge team will assist them in exploring possibilities of using drones for this research.

Bangladesh challenge team will travel to Chakaria District and observe the implication of climate change on both poverty and public health in both coastal and hilly area. We also have a specific task to survey the terrain to see what types of sensors and drones would be most suitable for this research. Upon return, our survey results and film footage will be used to seek suitable sensors and drones in cooperation with other international partners such as Red Cross Japan and Flying Lab.

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<sup>1</sup> See BBC News, Nov. 26<sup>th</sup> 2018. ‘How climate change could be causing miscarriages in Bangladesh’ (<https://www.bbc.com/news/world-asia-45715550>)