

## **The AIR (Air Pollution Interdisciplinary Research) Network**

The Stockholm Environment Institute at the University of York (SEI York) will be leading a new partnership bringing together African and European researchers, practitioners and community members interested in air pollution in low-resource settings in Sub-Saharan Africa. The **AIR** (**A**ction for Interdisciplinary Air Pollution **R**esearch) **Network** has been awarded £169,000 by the Medical Research Council (MRC) and Arts and Humanities Research Council (AHRC) Global Challenges Research Fund Partnership Award, and is being led by Dr Patrick Büker, Senior Researcher at SEI York.

Air pollution is a major health concern around the world, with Particulate Matter (PM) being one of the main pollutants of concern. PM consists of solid and liquid particles of different sizes - the smallest with particle sizes of 2.5 microns or less in diameter is classified as PM2.5 - that stem from burning fossil fuels such as charcoal, petrol, kerosene or biomass such as wood. Every breath a person takes contains PM and once inhaled, PM is known to cause ill health. In Africa alone, PM2.5 causes 670,000 premature deaths annually. As well as reducing life expectancy, it lowers the quality of life through respiratory and cardiovascular diseases often leading to a reduction in the resilience and productivity of people. Levels of this air pollutant are particularly high in informal settlements (sometimes referred to as slums), both outdoor and indoor: outdoor due to the settlements often being located near to industrial areas, busy and dusty roads, and sites of litter burning, and indoor due to cooking, lighting and heating with low-quality fuels in badly ventilated huts.

Attempts to improve air pollution and reduce people's exposure to it have been introduced in Nairobi's informal settlements in recent years, including awareness raising campaigns. However, significant positive effects on people's health have not yet been reported. The AIR Network will explore new approaches, bringing together researchers from different disciplines and people who live and work in the informal settlements to discuss the issues, raise awareness and consider potential solutions. These solutions will integrate scientific, non-scientific and societal understanding and knowledge to ensure relevance and impact.

The network comprises 15 partners – including the Centre for Global Health Histories at the University of York - from a wide range of disciplines, and we will use a mixture of methods to engage and communicate, including theatre, visual arts, mobile phones, games, story-telling and music. We will identify a future programme of work for the network to continue this work in the long-term.

Dr Büker said “We are really excited about the prospect of working with such a mixture of disciplines and backgrounds. Our ultimate aim is to co-create sustainable and culturally relevant interventions to reduce PM emissions and people's exposure to it, so there is real potential for this Network to have huge impact on people's lives in the region”.