Air pollution in developing regions; climate and health

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Air pollution is among the leading global risks for mortality and responsible for more than four million premature deaths. Abatements of air quality in developing regions are targeted by most Sustainable Development Goals but so far, very poorly addressed. Around 3 billion people cook and heat their homes using solid fuels (i.e. wood, charcoal, coal, dung, crop wastes) on open fires or traditional stoves. Old practices produce high levels of household (indoor) air pollution (HAP) which includes a range of health damaging pollutants such as fine particles and carbon monoxide. Women and younger children in vulnerable households are exposed to toxic pollutants and pneumonia is the leading cause of death in children between 1 month and five years of age in low- and middle-income countries. In an effort to make visible the invisible risks associated with air pollution, *we call* for contributions describing examples, feasibilities and ideas that illustrate how air quality initiatives can support improvement on various SDGs or national policies.

In order to reduce the burden of respiratory diseases multi-professional interventions and multidisciplinary strategies for improvement of air quality is needed. Hence, local capacity building and support of relevant institutions is crucial. Implementation of mitigation policy is further complicated by economic modernization and social, and political complexities. In addition, addressing the side-effects of local vs global emissions, atmospheric constituents – contrasting long-lived species like CO_2 with more short-lived climate pollutants (SLCPs) from incomplete combustion such as particulate matter and methane require local observations.

To get the 'full picture' information about local climate effects, such as on rainfall, draughts, flooding, haze, and seasonal cycles as well as possibilities for climate change adaptation vs prevention is also needed. The panel will address the need for local observations and analysis as well implications for policy in developing countries/cities. We invite contributions regarding indoor and outdoor pollution, and presentations on:

- Lack of information, regulations or implementation; collaborations and approaches associated with air quality management efforts aiming at reducing emission exposure/connecting to SDGs.
- climate change, effects, mitigation, prevention in developing countries or cities,
- reduction of the burden of respiratory diseases, especially pneumonia

The panel is open to participants from several research fields including social and political science, architecture, atmosphere science, occupational health, environmental medicine, child health, infectious diseases, microbiology, anthropology, and so on.