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AIR POLLUTION

VIEWPOINT PAPER

*Benefits and Costs of the Air Pollution Targets
for the Post-2015 Development Agenda*

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Post-2015 Consensus

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Introduction

Outdoor (ambient) and indoor (household) air pollution causes respiratory and other diseases. In particular, long-term exposure to fine particulate matter – both indoors and outdoors – has substantial negative effects on health. The use of solid fuels causes very high levels of household air pollution (HAP) and also substantially contributes to ambient air pollution (AAP). Bjorn Larsen’s paper helpfully points out the costs and benefits of pursuing either outdoor or indoor air pollution targets in the post-2015 development agenda. Yet, it is relatively silent about the recommendations and overall conclusion about air pollution targets in the new development agenda that follow from the cost-benefit analyses.

Viewpoint

As a complement to the assessment paper, I will discuss several aspects that are important for identifying appropriate targets from a conceptual point of view. This discussion is based on the assumption that the aim is to have air of sufficiently high quality, such that substantial negative effects on health are avoided.

Targets – indoor and outdoor?

Bjorn Larsen portrays indoor and outdoor air pollution separately (and presents air quality targets for outdoor air pollution and pollution-reduction targets for indoor air pollution as being appropriate). In order to easily grasp the context of air pollution, it seems helpful to explicitly distinguish between indoor and outdoor air pollution. Yet, indoor and outdoor air pollution needs to be understood as two sides of the same coin due to the significant interaction effects (which in the paper are referred to as “community effects”). Hence, this distinction is problematic if the full picture is needed for assessing costs and benefits as well as the appropriate (level of) targets. The idea presented by the author to have a “solid fuel use free” or an “unimproved stove free” community – similar to an “open defecation free” community – is interesting, but we would extend it to both indoor and outdoor pollution.

Recommendation: Given the community effects, it does not seem sensible to have separate goals for indoor and outdoor air quality. Rather, the overall air quality goal needs to be pursued by dealing with the different sources of pollution.

Targets – urban and rural?

The author does not elaborate in detail on the differences between urban and rural areas with respect to sources of pollution. Solid fuels and unimproved cook stoves for cooking seem to be the main pollution sources in rural areas, whereas motor vehicles and industrial facilities seem to cause most of the air pollution in urban areas. This implies that the implementation of air quality controls requires different actions in urban areas than in rural ones.

Recommendation: The targets for air quality can be the same for urban and rural areas, but the means to reach those targets are likely to be different, given the diverse sources of pollution. These varying means include the need to implement different instruments: Urban air pollution can probably be tackled with environment policy instruments, such as environmental taxes. Rural air pollution, however, calls for promotional and awareness-raising campaigns.

Targets – causes and symptoms?

Larsen distinguishes between three target domains – (a) reductions in health effects of air pollution, (b) improvements in air quality, and (c) reductions in sources of pollution – and briefly discusses corresponding targets. Although these distinctions are surely helpful, presenting the items separately misses the key point of what the causes are and what the symptoms are, thereby ignoring the causal chain. Looked at from a slightly different perspective, it becomes evident that pollution sources (c) are the causes of air pollution; air quality (b) is the symptom of air pollution with respect to the environment; and negative effects on health from air pollution (a) are the symptoms of air pollution with respect to human beings.

Recommendation: It seems more effective to tackle the causes of air pollution rather than the symptoms; this should be reflected in the target.

Targets – universally?

There is a strong consensus that the goals of the post-2015 development agenda should be universal, in that they cover all countries. Bjorn Larsen does not allude to the principle of universality and its implication for air pollution targets.

Recommendation: The goal on air quality should contain different targets for countries at different levels of development.

Other targets?

The ongoing debate about the post-2015 development agenda suggests that, in the end, different goals and targets may be linked. For instance, universal access to clean energy or the reduction of short-lived climate pollutants would reduce indoor and outdoor air pollution and thereby have significant positive effects on health. Against this background, it is unclear what the added value of a separate target on air pollution would be. Having said this, a separate target for air pollution reflects the political importance and promotes accountability.

Conclusion

Air quality is the goal, but with several target levels for different countries. This goal is achieved by tackling air pollution sources. In other words, air quality targets are defined and are achieved by reducing air pollution. The universality principle requires different targets that reflect the different ambition levels of each country, depending on its level of development. Whereas developed countries should aim at achieving “zero” targets (eliminate indoor and outdoor air pollution, respectively reduce anthropogenically caused air pollution such that negative health effects are eliminated), less-developed countries should aim at achieving the interim targets established by the World Health Organization (WHO). This could follow a similar logic to the one presented by Bjorn Larsen for regional ambient air pollution targets, but at the national level and including household air pollution targets. Air quality is the indicator that can be used to assess changes in air pollution levels and progress toward better air quality. This is achieved by abolishing sources of pollution – both indoors and outdoors and in urban and rural areas. When implementing this goal, the focus of intervention will surely vary, depending on the relative importance of indoor and outdoor pollution in urban and rural areas. In any case, the negative effects on health from both indoor and outdoor pollution require a comprehensive approach.

This paper was written by Katharina M. K. Stepping, Researcher at the German Development Institute. The project brings together 60 teams of economists with NGOs, international agencies and businesses to identify the targets with the greatest benefit-to-cost ratio for the UN's post-2015 development goals.

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