

# Clean Air & Stable Climate: Prerequisites for Living Well in the Future

## The 7<sup>th</sup> Environment Action Programme – Integrating Air Quality and Climate Policies

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The **European Commission (EC)** in November 2012 presented its **proposal for the 7th Environment Action Programme (EAP)**. The EAP shall guide EU environment policy up to 2020. For more than four decades such programmes have given direction to the work of the EC in the environmental field. They have set ambitions and goals, identified priority areas of work and, progressively, elaborated on the need to effectively mainstream environmental protection objectives into policies of other sectors.

**Nevertheless, accelerating climate change and persistent air pollution still pose serious health, resource and stability risks and require further substantial action.<sup>1</sup> The EAP needs to serve as an integrative strategic framework for environmental policy treating air quality and climate change issues together and not separately.**

The programme could thus become a key instrument for concerted action on reducing air pollutants, which not only affect human health and decrease crop yields but also drive climate change.

In order to undertake such coordinated efforts, **a progressive approach is needed**, aimed at unfolding the full potential of the EAP by **establishing a strong science-policy interface** and **strengthening democratic environmental governance**.

### Background

In 1973 the European Economic Community adopted the first Environment Action Programme (EAP) for the period from 1974 to 1975. Its notable success hinged on the introduction of a number of principles that have formed the basis of European Union (EU) environment policy ever since. In particular, this includes the precautionary and the polluter-pays principles. The former gives priority to preventing pollution over tackling its effects while the latter requires that the polluter, in principle, bears the cost of pollution, with due regard to the public interest. Both are constituent elements of the proposal for the 7<sup>th</sup> EAP.

Despite six Environment Action Programmes in the past four decades many environmental problems in Europe remain unresolved. One key reason is the varying level of implementation across Europe. Thus, the 7<sup>th</sup> EAP should strive to focus on putting knowledge, political decisions, and the respective policies into practice. Notably, it needs to take a more comprehensive and integrated approach to various environmental policy areas. This applies, in particular, to the nexus between air quality and climate change. The EAP needs to bridge the existing distances, and mainstream air quality and climate change issues into policies of closely linked sectors such as health, transport, agriculture, energy, and even development cooperation.

### A Platform for Action

The 7<sup>th</sup> Environment Action Programme provides a decent framework for action. This derives from the combination of (1) overarching principles, (2) priority objectives, (3) clear targets coupled with a specified timeframe until 2020, and (4) an inclusive and participatory approach:

- *First*, the **basis** of the 7<sup>th</sup> EAP, entitled “Living well within the limits of our planet”, is formed by the **polluter-pays and the precautionary principle** (Art. 1)<sup>II</sup>. Both principles are central in guiding decision-making towards sustainable development and support a holistic approach.
- *Second*, **nine “priority objectives”** (Art. 2) constitute the framework for action of the EU and its member states, thus giving structure, coherence, and direction to more specific measures.
- *Third*, the 7<sup>th</sup> EAP contains **targets and timetables for the reduction of specific pressures on the environment**. Amongst others, it stipulates that by 2020, “[a]ir quality in the EU has significantly improved”, and “[d]ecisive progress is made in adapting to climate change impacts” (para. 52). Though indefinite and vague at first sight, the flexibility of such goals renders them fit for adaptation to dynamic political developments in these fields – e.g., in the case of ongoing climate negotiations, where only by the end of 2015 it will be clear what the new agreement will look like, including its underlying objectives.
- *Fourth*, the 7<sup>th</sup> EAP focuses on an **inclusive and participatory approach**. In particular, emphasis is put on the role of non-government actors, and public authorities are asked to “work with businesses, and social partners, civil society and individual citizens” (Art. 3) – a *sine qua non* for the programme’s goal to ensure by 2020 “[C]itizens’ trust and confidence in EU environment law” (para. 63).

Together, these aspects provide a platform for action towards addressing a multitude of environmental challenges. However, taking a closer look, additional efforts are required to prevent that pressing environmental problems are considered separately. In this respect, particular attention should be given to the promotion of inter-sectoral approaches to air and climate policies.

## Air Pollution & Climate Change – Connecting the dots ...

In principle, the 7<sup>th</sup> Environment Action Programme takes an integrative approach to air quality and climate issues. Both are covered under multiple priority objectives, such as natural capital, health, and cities, thereby underlining the ambition to actively promote synergies with other policy areas across Europe. Indeed, the EAP explicitly states that reducing certain air pollutants can make an important contribution to climate change mitigation (para. 46). Also, it provides for health benefits of certain policy measures, including ecosystem restoration or green infrastructure, being taken fully into account (para. 51).

This serves as a good basis for addressing the climate-health-agriculture nexus of short-lived climate-forcing pollutants (SLCP)<sup>III</sup>, which include various air pollutants, i.e. particulate matter (PM), especially black carbon, and various climate-forcing gases such as methane and hydrofluorocarbons (HFCs).

### **What are the tangible benefits of SLCP mitigation?**

- **Human Health:** Prompt and rigorous reduction of black carbon alone will decrease annual premature deaths in Europe by about 100,000. In addition, the decrease in lifetime for EU citizens due to air pollution from particulate matter (estimated at 6.3 months as of 2010)<sup>IV</sup> may be reduced substantially.
- **Climate:** Immediate SLCP mitigation could reduce the global mean temperature increase until 2050 by about half a degree Celsius,<sup>V</sup> though this will only be effective over the longer term if combined with simultaneous aggressive mitigation of CO<sub>2</sub> emissions.
- **Agriculture:** European staple crop losses of up to 3.2 billion Euros every year due to SLCP emissions<sup>VI</sup> could be avoided.

### **Why focus on mitigating SLCPs?**

Reduced SLCP emissions would **quickly** result in equivalent reductions of SLCP concentrations in the atmosphere, leading towards a rapid reduction of their damages to climate, human health and agriculture. Because of their short atmospheric lifetimes, SLCP mitigation benefits would mostly be accrued at the **local and regional** level, i.e. where emissions had been reduced.

The proposed 7<sup>th</sup> EAP is thus well suited for incorporating SLCP mitigation measures in accordance with the latest scientific knowledge. This knowledge, however, needs to be properly reflected in the programme, which is currently not the case:

- *First*, the 7<sup>th</sup> EAP needs to be expanded to generally **include SLCPs alongside CO<sub>2</sub>**.
- *Second*, scientific evidence with regard to the **carcinogenic nature of black carbon** needs to be transformed into objectives within the EAP for safeguarding the health of EU citizens.
- *Third*, existing **regulations that can be counterproductive to SLCP** mitigation goals, e.g. the Montreal Protocol, which encouraged the use of HFCs as replacement products, **need to be resolved**, and considered accordingly in the 7<sup>th</sup> EAP.

### **Three recommendations for strengthening the 7<sup>th</sup> EAP**

A key factor in addressing these weaknesses and for the successful implementation of the 7<sup>th</sup> EAP would be a **strong science-policy interface** with regular and outcome-oriented dialogue.

Likewise, the EAP's aspiration for being participatory should be accompanied by progressive procedural means **strengthening democratic environmental governance**. In particular, this includes practices which increase transparency, make participation meaningful and provide equal access to information and justice to environmentally relevant matters throughout all EU Member States. Inter alia, this may be achieved by ensuring systematic reporting, monitoring and evaluation, and by reviewing the current legislation on public access to environmental information, including the incorporation of relevant ICT developments.

Finally, despite air quality and climate change issues gradually starting to converge, they still remain isolated and not fully mainstreamed throughout the 7<sup>th</sup> EAP. In order to implement the integrative approach to both policy areas, **air quality and climate change issues** may no longer be treated as distinct and separate, but as a **single policy field** – with the result of this process being mainstreamed throughout the EAP.

## About

*This policy brief has been written by Dr. Birgit Lode with contributions from Dr. Julia Schmale and Achim Maas. All authors work in the IASS cluster "Sustainable Interactions with the Atmosphere", directed by PD Dr. Mark Lawrence.*

### **Institute for Advanced Sustainability Studies (IASS)**

The founding of the IASS was inspired by a 2007 symposium of Nobel laureates "Global Sustainability – A Nobel Cause" held in Potsdam. The alliance of German scientific organizations created the concept for an interdisciplinary, international, knowledge exchange encouraging institute for sustainability studies. Today, the IASS in Potsdam is an international platform where experts from natural and social science, politics, the private sector and civil society collaborate on topics of sustainable development. As an institute for transdisciplinary sustainability studies, the IASS generates and communicates the needed knowledge to shape sustainable societies.

The Institute focuses on three main research areas represented by the clusters "A Global Contract for Sustainability" (GCS), "Earth, Energy and the Environment" (E3) and "Sustainable Interactions with the Atmosphere" (SIWA). [www.iass-potsdam.de](http://www.iass-potsdam.de)

### **Research Cluster Sustainable Interactions with the Atmosphere (SIWA)**

The cluster Sustainable Interactions with the Atmosphere (SIWA), under the direction of PD Dr. Mark Lawrence, enquires into how humans, as the driving force of the Anthropocene, are modifying the composition of the atmosphere, how this in turn impacts humanity, and how this interaction can be made more sustainable. SIWA examines how unintended human perturbations to the atmosphere can be mitigated, particularly through rapid reductions of short-lived climate pollutants (SLCPs), and also addresses a major possible transition facing us: from unintentionally perturbing the global atmosphere, to large-scale intentional intervention in the climate system ("climate engineering"). Focusing on the atmosphere conceptually bridges the topic of energy and its implications for emissions (E3), and the impacts on and responses of society (GCS).

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For more information and the online version of this document visit:

<http://www.iass-potsdam.de/research-clusters/sustainable-interactions-atmosphere-siwa>

#### References:

<sup>I</sup>E.g., UNEP and WMO, Integrated Assessment of Black Carbon and Tropospheric Ozone (2011), UNEP, Near-term Climate Protection and Clean Air Benefits (2011); <sup>II</sup>The cited articles and paragraphs refer to COM (2012) 710 final, Brussels, 29.11.2012; <sup>III</sup>For additional information on SLCP see the IASS and Oxford Martin School policy brief "Integrating the Reduction of Short-Lived Climate-forcing Pollutants in EU Air Quality and Climate Change Mitigation Policies" (2013); <sup>IV</sup>WHO, Air quality guidelines for particulate matter, ozone, nitrogen dioxide and sulphur dioxide (2006); <sup>V</sup>Combination of (~0.5°C [range: 0.2°C to 0.7°C]) projection for black carbon and methane mitigation (UNEP and WMO Report 2011) and ~0.1°C projection of HFC mitigation (Velders et al., 2012); <sup>VI</sup>CEH, Air pollution and Vegetation, ICP Vegetation Annual Report 2011/2012 (2012).