

IV.

Setting the objectives, targets and timetables: Sectoral legislation

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IV.1 Introduction

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In order to develop Europe's environmental policy, the general **EU objective of achieving a "high level of protection and improvement of the quality of the environment"** has to be defined. **Indicators** have to be developed, which allow a measurement of success and failure, and **specific targets with deadlines** set in EU legislation, to provide Europe's citizens with clear and enforceable rights to a clean environment.

The European Environment Agency EEA regularly publishes environmental indicators, which give an overview of the state of Europe's environment and the success of its environmental policy priorities (EEA 2005). Nevertheless, EEA indicators are dependent on data availability, which is strongly linked to monitoring and reporting requirements set out in EU environmental legislation. Many environmental problems not covered by legislation are therefore not addressed using indicators or benchmarking.

There are many different ways to establish environmental targets based on ecological carrying capacity and/or human health protection, the latter clearly dominant in Europe's environmental legislation. As the ecosystem approach encompasses all aspects of the biotic and non-biotic world it presents a long-term and thus abstract objective. Ecosystem variations should be separated into anthropogenic induced ones and those which are independent of human activities, in order to allow targeted policy action. For example Europe's objective "to halt biodiversity decline by 2010" (see chapter IV.2) is of such a general nature that without specific indicators or targets, which can be related to human activities, little direct policy action is likely. Nevertheless this objective is a key policy driver to developing and setting less integrated but more enforceable targets. So far, no overall indicator for biodiversity is available and only partial indicators - like farmland bird or threatened species, ecological water status, area and connectivity of nature protected land - have been or are being developed. This may now change with the SEBI2010 project which seeks to develop a European set of biodiversity indicators to assess and inform about progress towards the European 2010 goals but only started as recently as January 2005⁸. With regard to resource use – biotic and non-biotic – some indicators are available, including municipal waste volumes, water and energy consumption and land use (soil sealing, infrastructure), but are mostly of a very general nature and not used for establishing enforceable targets.

What is quite remarkable is the ignorance with which the European Union, one of the wealthiest regions in the world, treats its ecosystems. It seems unable to collect and make available sufficient information to allow us to form a clear picture of the true state of the environment, enabling us to set quantitative targets.

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⁸ SEBI 2010: The Streamlining European Biodiversity Indicators 2010 project (SEBI 2010) is one of the more concrete outcomes from the Malahide Conference on biodiversity. This conference was held in Malahide, Ireland in 2004 and brought together stakeholder from all over the EU to discuss priority for EU biodiversity policy. They agreed that indicators for biodiversity were badly needed in Europe. The project is led and run by the European Environment Agency and the coordination team consists of experts from a.o. the European Topic Centre, ECNC and the EEA. <http://www.ecnc.nl/>

Therefore, in terms of setting ecosystem related targets with deadlines in European legislation, rather little has happened. As indicated above, the “2010 biodiversity” target is neither enforceable nor easily related to specific policy action. However, this target can be, and is, linked to specific sectoral objectives - like the objective to “end eutrophication” from agriculture activities as set by the Nitrates Directive (*see chapter IV.5.7.4*) and the maximum NO_x and NH₃ air emission targets set by the National Emission Ceilings Directive (*see chapter IV.3.4*); achieving the Favourable Conservation Status of important flora, fauna and habitats as established by the Wild Birds and Habitats Directives (*see chapter IV.2.2*); or the achievement of “good ecological status” in rivers, lakes and coastal waters by 2015 as set in the Water Framework Directive (*see chapter IV.5.5.1*).

It must be noted that **environmental quality standards**⁹ which are directly linked to the ecosystem approach have not been developed for any of the above examples. The most advanced ecosystem approach is represented by the Water Framework Directive, which describes the standards and parameters in a normative way, but leaves it up to Member States to set quantitative standards. EU wide water quality standards are to be set on the basis of an ecotoxicological approach for only a limited number of chemical substances. (*see chapter IV.5.5.2*). Most European environmental quality standards are developed on the basis of human health protection, e.g. drinking water, bathing water and air quality standards. Overall there are only a few dozen chemical quality standards (except the overall pesticide standard for drinking water) set at EU level for a few media (drinking water resources, rivers, lakes and air). This looks rather irrelevant when viewed in relation to the 100,000 plus chemicals which are allowed to be marketed and used in the EU and the other environmental compartments (soil, marine). Scientific uncertainties are high, specifically with regard to ecosystem protection. Uncertainty is mainly addressed through a “safety factor” in order to take into account the fact that the (eco)toxicological safe level depends on the species and that synergy effects with other pollutants occur regularly. Monitoring and compliance control is another peculiar problem, as it is often the most expensive aspect of setting (and enforcing) environmental quality standards. Therefore, the effectiveness of environmental quality standards in achieving overall ecosystem and human health protection is currently rather limited.

On the other hand **emission limit values** complement environmental quality standards. They regulate the source of pollution in order to restrict the level of permitted noise or pollutant emissions to the environment by means of general or abstract limit values. In principle, they are guided by state of the art technology or more economically driven by the best available technology. By focusing on the source of environmental pollution, emission limit values are to take account of principles to prevent pollution at source and to take precautionary action. Setting emission limit values should be seen as an optimisation obligation, essentially calling on the EU’s legislative institutions to require those responsible to take all possible technical measures to limit and progressively reduce pollutant emissions. Unfortunately, in the process of agreeing on the concrete limit values, compromises are being made to keep unwilling governments on board. At

⁹ *Environmental Quality Standards* are defined very differently. Sometimes they are generally described as rules related to environmental quality outlining a desirable quality level, concerned with individual aspects of the environment, such as a particular medium (soil, water, air) or a specific target (e.g. human beings, ecosystems, etc.). In this context they are understood as a quantitative and measurable level of pollution or deterioration, e.g. a chemical concentration in air or water.

EU level a few emission standards have been established for industrial discharges into water (*see chapter IV.5.7.2*), for air pollution from cars and combustion plants (*see chapter IV.3.5 and IV.3.6*) and for noise pollution from different machinery (e.g. road vehicles, lawn mowers, construction and home appliances). Furthermore, EU guidance for setting national, regional or local emission limit values for bigger industrial installations is provided via the IPPC Directive, based on Best Available Technologies BAT (*see chapter V.3.2*).

The **relation between emission limit values and quality standards** is historically a difficult one. Quality standards specify citizens' rights to certain physical environmental standards and should ensure the long-term stability of ecosystems. Emission limits impose restrictions on individual economic activities, should reduce overall pollution and as a minimum ensure the achievement of environmental quality standards. This so-called **"combined approach"** (*see chapters IV.5.5.2.2.2 on WFD and V.3.2.2.4 on IPPC*) should set minimum environmental quality standards, avoid filling levels of pollution up to these standards and thus ensure the implementation of the precautionary and prevention at source principles and prevent long-term or global pollution. But this is a "chicken and egg" dilemma. In many cases, emission limit values are set in relation to available environmental quality standards instead of best available technologies and thus allow the "filling up" of water or air to respective standards. This clear violation of precaution and pollution prevention might also be encouraged by the IPPC Directive (*see chapter V.3.2.3.2*), which allows authorities to take into account local environmental conditions when defining emission limit values. Different countries have chosen different approaches and have tried to impose them at EU level. Germany has traditionally applied a technologically driven emission limit approach while the UK has preferred setting emission limit values to determine what level of pollutant discharges is acceptable. Besides this being the result of geographic differences between the two countries (quick dilution or disposal of contamination on an island in contrast to a continental and transboundary situation) it is also the result of different types of national economic development and models of state intervention - which changed in the case of UK and Germany in the 1990s (*Wurzel 2002*).

The current tendency of EU environmental policies is to follow an environmental impact and thus environmental quality approach (*see Water Framework Directive IV.5, IPPC Directive V.3.2 and the Commission ideas for a revision of the Waste Framework Directive IV.4.6*) to the disadvantage of "state of the art" based emission limit values. This must not be seen as a negative development per se, as EU environmental quality standards can be very powerful policy drivers - as seen in Drinking Water or Air Policies¹⁰ - potentially leading to substantial changes in e.g. transport and agriculture policies. It all depends on whether or not those standards are sufficient to prevent loss of biodiversity and maintain the ecological carrying capacity. Thus they need to be protected against legislative dilution or granting exemptions and whether more standards are finally set for more environmental media (soil, marine sediments) at EU level.

With respect to chemical standards, a lot is expected from Europe's chemicals policy reform (REACH), in delivering valuable information for many thousands of different chemicals, allowing the establishment of air, water and soil quality standards. On the other hand, there is strong

¹⁰ The EU air quality standards (for SO₂, Lead, PM₁₀ and CO) to be met in 2005 will, on the whole, not be achieved by Member States and have triggered an intensive public debate in several countries, including legal challenges.

national resistance against setting new EU quality standards, as experienced in the ongoing process to establish new air and water quality standards. Finally, global and long-term pollution resulting from the emission of persistent and bioaccumulative chemicals can only be addressed through emission controls and limit values. But the boundaries of what classical emission controls can deliver - mainly dealing with point sources (industrial installations) - are quickly reached, bringing the diffuse sources (agriculture, consumer products, transport) into the spotlight. For these, BAT based concepts or product-by-product controls are rather ineffective and more generic approaches, such as the substitution of hazardous chemicals with safer alternatives throughout the value chain¹¹, have to be applied.

The following chapters explain and assess Europe's main legislation in setting environmental objectives, targets and deadlines for Nature Protection, Air, Water and Waste policies. Many deadlines set by those policies are due to be met in the very near future and a great number of Member States will fail to achieve them and instead seek exemptions or extended deadlines. At the same time, citizens and ECOs will have ample room to organise political and legal activities to challenge their government's failure to achieve these objectives and targets because of delayed or non-existent action.

In particular, Air and Waste policies will be revised in the coming years under the 6th Environmental Action Programme. At the time of writing, the tendency was to go for deregulation partly because of the pressure to simplify and reduce environmental legislation due to misconceptions of excessive cost burdens to industry. It is, however, also partly because of deficits in implementation resulting in Member States being susceptible to multiple infringement procedures resulting in little national appetite for further environmental legislation. In this area there is an important role for ECOs to ensure that Member States 'get it right' (correct transposition) and enforce transposed legislation themselves from the beginning, not only resulting in better environmental protection but also avoiding the future development of avoidable political antibodies.

BIBLIOGRAPHY AND FURTHER READING

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¹¹ A series of value-generating activities