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ENVIRONMENTAL ENFORCEMENT IN DECENTRALISED GOVERNANCE SYSTEMS: Toward a Nationwide Level Playing Field

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FOREWORD

This report analyses the experience of several OECD countries with multi-level environmental governance in promoting a nationwide consistency of environmental enforcement. It provides an overview of the main mechanisms to establish a level playing field in the implementation of national environmental law and provides recommendations on how to use them to address the principal challenges of decentralisation of compliance monitoring and enforcement.

The report is in line with the OECD Framework for Effective and Efficient Environmental Policies which asserts the need to "treat the regulated community with consistency and in a transparent and proportionate manner". It assists OECD governments in the implementation of their environmental laws through policy-relevant analysis and cross-country exchange of information and experiences.

The report was prepared by Eugene Mazur of the OECD Environment Directorate. The study was financially supported by the governments of Spain, Sweden, Switzerland and the United States. The paper was discussed and enriched at an OECD expert meeting in Paris on 16-17 December 2010.

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EXECUTIVE SUMMARY

This report analyses approaches to managing environmental compliance monitoring and enforcement in several OECD countries with decentralised systems of environmental governance. It focuses principally on strategies and instruments for promoting consistency in the implementation of national environmental law. The report reviews in detail the experience of Spain, Sweden, Switzerland and the United States and draws on examples from several other countries.

The degree and nature of (de)centralisation requires governments to confront trade-offs. On the one hand, highly centralised systems facilitate the creation of a level playing field for all regulated entities. On the other hand, more decentralised systems can provide lower levels of government with discretion to tailor their interventions to balance benefits and costs in the local context. However, this potential advantage can be undermined if local economic interests overly influence decision-making, or if decentralisation results in insufficient resources being available to lower levels of government to carry out their tasks. Governments' practices in addressing these trade-offs can have an important bearing on the efficiency and effectiveness of achieving environmental policy objectives. Thus there can be benefits from comparative analysis of these practices to help identify successful approaches and implementation tools.

The extent and main features of decentralisation of environmental compliance assurance are largely shaped by each country's constitutional structure and institutional traditions. Decentralised systems are found in both federal and unitary countries (in the latter, decentralisation should be distinguished from de-concentration, where policy implementation is carried out by local offices of the central government). There are important differences in the ways these systems function. Some federal countries have a strong legislative and enforcement presence of the national government, while in others it is very limited. In some decentralised unitary states, sub-national governments can issue regulations under national environmental laws while in others they have only implementation powers. This study focuses on those systems where at least the basic environmental legislation is developed at the national level and where, therefore, there is a common need to develop mechanisms to ensure fair and equitable treatment for all regulated entities subject to national jurisdiction.

The degree of discretion of environmental enforcement authorities at lower administrative levels differs widely from country to country and, together with the distribution of financial resources, has a major influence on the internal operational organisation of respective authorities. As a result, a variety of institutional arrangements have been established in different countries: from regional offices of national environmental authorities to strengthen links between the national and sub-national levels (as in the US and Mexico) to joint environmental agencies of neighbouring local communities to realise economies of scale (as in the Netherlands and Sweden).

The following programmatic elements of environmental enforcement are key to ensuring nationwide consistency:

- The targeting of compliance monitoring (representing a strategy to detect non-compliance);
- The selection of an enforcement instrument (on a scale of sanctions from an informal warning to a referral for criminal prosecution) and the timeliness of non-compliance response; and

- The size of monetary penalties for non-compliance (directly affecting the economic equity).

Developing a coherent and consistent approach to these issues across different sub-national and local jurisdictions is a major challenge in terms of compliance assurance policy (and its vigour) and the choice of specific tools. An important prerequisite for the evaluation of nationwide consistency of enforcement is accurate and complete information on the performance of sub-national and local competent authorities.

To address these challenges, OECD countries employ a range of mechanisms of institutional interaction: "vertical" (between different administrative levels) as well as "horizontal" (between competent authorities at the same level). The report presents multiple examples of the use of each mechanism in different decentralised systems.

In the vertical dimension, the principal tools include:

- Defining compliance monitoring and enforcement priorities in formal or informal partnership between national and lower-level authorities;

- Oversight of lower-level authorities by higher-level ones via performance reviews or audits, with possible limited intervention based on its results; and

- Building compliance assurance capacity of sub-national and local authorities through training, guidance and ad hoc advice.

The horizontal mechanisms, which often engage national-level authorities and extend to other government stakeholders with enforcement responsibilities (such as industrial safety, labour inspectorates and the police), include interagency coordination bodies, peer networks and associations, as well as various forms of issue-specific collaboration.

Based on the analysis of OECD countries' good practices, the report suggests several ways to ensure national consistency in the implementation of the three key programmatic elements of enforcement mentioned above:

- Joint environmental priority setting, prioritisation tools, guidance and training to promote risk-based inspection targeting;

- Comparable enforcement policies (based on jointly developed guidance) and operational interagency coordination to steer the choice of proportionate and equitable response to environmental violations; and

- Using consistent methodologies to determine monetary penalties with the aim of removing the economic benefits of non-compliance – a crucial factor of restoring a level economic playing field across the regulated community.

More generally, various mechanisms of interagency dialogue on environmental compliance monitoring and enforcement should facilitate high-level policy coordination, exchange of experiences and practices, development of common approaches and tools, and routine collaboration on the ground.

Finally, regular and systematic performance reviews, to the extent they fall within the legislative limits of oversight, are an extremely useful instrument of improving national consistency of enforcement. They require the establishment of sound performance measures (including outcome indicators) and adequate data collection and reporting mechanisms.

1. INTRODUCTION

Multi-level regulatory governance, encompassing rule-making and enforcement activities of all the different levels of public administration, is a core element of effective regulatory management. Effective organisation of multi-level regulatory governance is relevant to all countries that are seeking to improve the outcomes of regulation, independent of their constitutional structure (federations, unitary states, etc.).

Decentralisation – a process of devolving powers and reforming the assignment of responsibilities across levels of government – has been a noticeable trend in public administration both in OECD countries and worldwide over the last two decades (OECD, 2005b). This trend has important implications for governance in the environmental sector, including ensuring compliance with environmental legislation.

While the decentralisation of environmental compliance assurance[1] addresses the need for tailored and flexible responses based on local environmental priorities, the national government may see a sub-national government or a municipality as protecting favoured local polluting industries for economic reasons. Differences in compliance monitoring strategies and non-compliance responses between competent authorities at different administrative levels are, indeed, quite common. The business community often expresses concerns about the lack of national consistency of compliance monitoring and enforcement leading to distortions in the economic level playing field (punishing law-abiding corporate citizens), particularly with respect to the response to certain categories of offences and the severity of penalties.

1.1 Scope and Objective

This study explores the issue of *establishing a level playing field in environmental enforcement* via effective linkages between activities at the national, sub-national and local levels in decentralised systems of environmental governance. This issue is considered in the context of the legal and institutional frameworks in different OECD countries, especially with respect to setting environmental requirements. As further discussed in Section 2.1, it covers countries where at least fundamental environmental legislation is adopted at the national level, but its specification and implementation resides at the sub-national and/or local level.

The study addresses two sets of issues of national consistency in environmental compliance monitoring (inspection) and enforcement:

a) vertical issues – mechanisms of interaction between competent authorities at different administrative levels; and

b) horizontal issues – coherence between strategies and instruments in different jurisdictions.

The focus of the study is on actions of governmental environmental enforcement authorities (EEAs). Therefore, it covers administrative enforcement, as it fully resides in the competence of EEAs and its general purpose is to restore compliance, and the role of EEAs in responding to criminal non-compliance

[1] "Compliance assurance" refers to the application of regulatory requirements and encompasses all available instruments (compliance promotion, monitoring and enforcement) aimed at influencing the behaviour of regulated entities and ensuring regulatory compliance.

(since the nationwide consistency of criminal enforcement largely depends on the pattern of decisions of public prosecutors and courts, which is not considered here).

The project's overall objective is to *assist OECD countries in effective, efficient and equitable implementation of their environmental policies* through analysis and exchange of experiences and good practices. The report's insights can also be helpful for OECD partner countries like Brazil, China, India, Indonesia and Russia that are establishing or reforming environmental management systems.

1.2 Methodology

The study was conducted in partnership with national environmental authorities in four participating OECD countries: Spain's Ministry of the Environment and Rural and Marine Affairs, the Swedish Environmental Protection Agency, the Swiss Federal Office for the Environment and the United States Environmental Protection Agency. The OECD Secretariat used a targeted questionnaire, research and interviews to collect information from the partner national authorities as well as several sub-national and local EEAs selected by the countries themselves.

This information was complemented by literature and web research on other OECD countries with decentralised systems of environmental governance. The principal sources for this research included OECD Environmental Performance Reviews as well as the 2009 OECD report "Ensuring Environmental Compliance: Trends and Good Practices"[2] which included a comprehensive analysis of the design and implementation of government programmes to ensure compliance with pollution prevention and control regulations in six OECD countries.

At a workshop convened in Paris on 16-17 December 2010, experts from ten OECD countries discussed a draft of this report and exchanged experiences in striving to establish a level playing field in environmental enforcement in their countries.

1.3 Structure of the Report

Essentially, the report aims at answering the following question: Given the degree of discretion within a particular governance structure and the major challenges of consistency of enforcement strategies and instruments, what oversight, coordination and capacity building mechanisms are needed to improve the national consistency of environmental enforcement? It is structured as follows:

- *Chapter 2* gives an overview of decentralised systems of environmental compliance assurance, focusing on institutional structures and the distribution of powers and resources within them;
- *Chapter 3* considers the main aspects of national consistency of environmental enforcement and illustrates the complexities associated with addressing them;
- *Chapter 4* reviews the experience in different countries of designing oversight and performance assessment mechanisms that contribute establishing a national level playing field;
- *Chapter 5* analyses possible approaches to vertical and horizontal interagency coordination and means to ensure the adequacy of institutional capacity of sub-national and local EEAs; and
- *Chapter 6* summarises the main mechanisms for addressing the issue of national consistency and provides suggestions on how to optimise their implementation.

[2] www.oecd.org/env/policies/compliance

2. DECENTRALISATION OF COMPLIANCE MONITORING AND ENFORCEMENT

The degree to which environmental policy objectives are achieved depends to a great extent upon governance arrangements, in particular the allocation of responsibilities, powers and resources across different levels of government. For example, decentralisation may mean delegation of responsibilities for the implementation of national legislation and/or compliance and enforcement with respect to sub-national and local regulations.

This chapter describes different kinds of decentralised systems of environmental compliance assurance in OECD countries, the extent of flexibility that sub-national and local authorities enjoy in enforcing national environmental laws and the respective institutional arrangements. It also addresses the link between the sub-national or local governments' compliance monitoring and enforcement mandate and the financial resources they have to carry out these activities.

2.1 Types of Decentralised Systems

The degree of decentralisation is largely determined by existing institutional structures and traditions, which in turn are based on constitutional arrangements. The difference between federalism and decentralisation in unitary countries[3] is that in the latter the central government can theoretically take back the powers it has handed down, whereas in the former both levels are subject to the constitution. However, the distinction between federal and unitary countries does not fully cover the entire range and variety of institutional contexts of decentralised environmental governance. The most common types of the division of environmental regulatory responsibilities between levels of government are the following:

- ***Federal countries with a strong legislative and enforcement presence of the national government.*** This is the distinctive case of the United States, where the main federal environmental statutes establish federal-state regulatory programmes in which states are given the opportunity to enforce laws while meeting minimum federal criteria ("authorized programs"). State laws may replicate or go beyond federal statutes as well as cover areas not regulated at the federal level (e.g. groundwater protection). Other federal countries with a major role of the federal government include Canada (where certain environmental issues are regulated by federal acts while others are the responsibility of the provincial and territorial governments) and Mexico (where extensive federal environmental legislation is complemented by state laws).

- ***Federal and unitary countries where sub-national governments have authority to issue regulations under national environmental laws and discretion to implement them.*** This is the case, among others, in Switzerland, Spain, Germany and Austria. The Swiss federal laws and ordinances contain minimum environmental protection norms (e.g. emission standards by industrial sector), while cantons issue implementing regulations which may set more stringent requirements. The cantons have exclusive compliance assurance responsibilities, except a few domains like trans-boundary movement of hazardous waste and regulation of chemicals. In Spain, municipalities can set and enforce requirements more stringent than those stipulated by the

[3] Decentralisation in unitary countries is different from administrative de-concentration, where the central government retains the regulatory responsibility, and regulations are implemented by its local offices (as in France).

Autonomous Community (regional) regulations (although they rarely do so). In Germany, states (*Länder*) are responsible for the implementation of environmental requirements, but enforcement is often delegated to local governments.

- ***Unitary countries where sub-national governments have no powers to establish regulatory requirements but implement regulations developed at the central level.*** This category covers several systems with different degrees of presence of, and oversight from, the central government. There are systems where the national environment ministry (or agency) has very limited or no enforcement responsibilities, like in Sweden, Finland, Italy, Japan and Korea, and those with fairly strong central environmental inspectorates with important oversight functions, like in Poland[4]. In most of these countries, municipalities play an important compliance assurance role. They may either have full enforcement responsibilities (as in Korea) or share them with the regional (provincial or county) government.

The issue of national coherence of environmental enforcement in federal countries, like Australia[5], where both the legislative and enforcement powers reside at the sub-national level, goes beyond the scope of this study because sub-national competent authorities do not *a priori* enforce the same laws. *This paper focuses on the systems where at least the basic environmental legislation is developed at the national level.*

It is important to note that even in decentralised systems there are always environmental issues that fall exclusively under the jurisdiction of the national government. These usually include trans-boundary movement of hazardous waste, regulation of chemicals, nuclear power plants, military installations and other strategic infrastructure, etc. National level competency may also extend to other cross-jurisdictional priority issues such as the management of inter-regional river basins (including surface waters and groundwater) and marine waters. The latter is the case in Spain where eight river basin authorities (Water Confederations) issue water abstraction and wastewater discharge permits and have a right to inspect and impose sanctions in accordance with the Water Law. In the Netherlands, the State Water Board is responsible for permitting, compliance monitoring and enforcement with respect to the country's major water bodies (the sea and principal rivers). In addition, other government authorities with environmental enforcement responsibilities (notably the general and/or environmental police) may have a very different organisational setup, increasing the need for interagency coordination (see Section 5.2).

2.2 Degree of Legal and Policy Discretion of Competent Authorities

The regulatory dimension of decentralisation implies that multiple levels of government agencies produce and/or enforce regulation that affects citizens and businesses in different ways. A crucial issue in establishing a level playing field in the context of multi-level governance is how much discretion should be left to competent authorities at lower administrative levels. On the one hand, the discretion by local authorities may increase the efficiency of policy implementation when assuming that national (or even sub-national) regulations do not take account of the heterogeneity of the local context. On the other hand, local discretion may open possibilities for non-transparent, inappropriate influence of local special (including political) interests and even corruption, resulting in lower compliance and regulatory failure[6]. Avoiding enforcing against certain facilities because jobs may be lost as a result is a particularly relevant example of such ill-used local discretion in compliance assurance.

[4] Poland has double subordination of sub-national enforcement authorities (a system that exists in many non-OECD countries): to the regional government and to the central Chief Inspectorate for Environmental Protection.

[5] In Australia, the states and territories hold the principal regulatory power in all but a few environmental areas, while many day-to-day administrative decisions concerning the environment are taken by local governments.

[6] The related economic theory of regulatory behaviour is described in more detail in OECD (2004).

The degree of sub-national enforcement authorities' discretion varies substantially across the studied countries: from very little formal latitude in Sweden to significant flexibility in Spain and Switzerland, to a complex patchwork of federal and state powers under "authorized programs" in the US.

In Sweden, while the Swedish Environmental Protection Agency (SEPA) is officially responsible for supervision of the implementation of a major part of the country's Environmental Code, the law gives sub-national EEAs – 21 County Administrative Boards (CABs) at regional level and 290 local Environmental and Public Health Committees (EPHCs) in the municipalities – a mandate to enforce national requirements. These authorities can set their own priorities for compliance monitoring and impose corrective actions on regulated entities, but the law does not give them discretion in determining sanctions. A specific ordinance defines the infringements (about 50) for which EEAs must impose fines as well as their precise amounts. For other offences (such as violation of permit conditions), the competent authority is required to refer the case to a public prosecutor.

Regional authorities (Autonomous Communities) in Spain have complete discretion in monitoring compliance with their own regulations implementing the national laws, but monetary sanctions they impose for non-compliance must conform to national provisions that define lower and upper limits for administrative penalties for specific types of infringements. Within this basic reference framework, the Autonomous Communities can establish their own minimum and maximum penalty values (which are seldom different from the national ones). Similarly, Swiss cantons issue and enforce ordinances that implement federal laws, but it is the federal environmental legislation that defines sanctions for violations either directly or in reference to the Administrative or Penal Codes.

Among OECD countries, the US has perhaps the most intricate system of environmental law enforcement, with overlapping powers of federal and state authorities (see Box 1). The overwhelming majority of US environmental regulatory programmes have been delegated to the states, which conduct over 90% of all enforcement actions (ECOS, 2006). However, the US EPA has the power to enforce federal statutes across the country even under authorised programmes. Moreover, states and the EPA usually combine enforcement efforts for very large or important cases.

Box 1. Federal and State Competencies in Environmental Enforcement in the United States

Many federal environmental statutes (notably the Clean Air Act, the Clean Water Act and the Resource Conservation and Recovery Act) establish federal-state regulatory programmes. States had to apply for, and have usually received, US EPA authorisation to implement federal laws through state laws that maintain minimum federal criteria. State laws may replicate federal statutes (or simply reference them, as does the Illinois Environmental Protection Act), but they also cover areas not regulated at the federal level such as groundwater protection. The EPA provides funds to states to assist them in the implementation of federal programmes (see Section 2.4).

States are not precluded from enforcing criteria more stringent than those required by the federal laws. A state may adopt more stringent requirements (e.g. Vermont has tougher standards for hazardous air pollutants) and/or expand the requirements to a broader regulated community (New Hampshire applies RCRA requirements to even very small hazardous waste generators). However, in some other states (e.g. Indiana, Wisconsin), legislatures have prohibited state environmental agencies to promulgate regulations with requirements going beyond those of federal statutes.

States can only take civil judicial enforcement actions under federal statutes, but can take administrative and criminal actions under state laws that correspond to federal ones. In fact, to be delegated a federal regulatory programme, a state must have criminal provisions in its corresponding statute. In implementing their own, independent state environmental laws, states may also take administrative, civil and criminal actions.

Under all federal environmental statutes, the US EPA has expansive and sweeping authority to request information from individuals and companies, review and evaluate all compliance-related information, inspect facilities, and conduct investigations. If a state fails to take action under an authorised programme, does not obtain acceptable results, requests assistance, or if the EPA sees a need for national consistency or to address a national priority, the EPA may get involved and take direct administrative, civil or criminal action to enforce national law. Should a state fail to perform, the EPA may withhold its grant funds as a sanction or even withdraw authorisation of a state programme. However, the emphasis is commonly on constructive assistance to improve state programmes.

Source : OECD (2009).

In countries where municipal governments have environmental regulatory responsibilities, they usually implement national laws (as in Sweden, the Netherlands, Japan and several others) and/or sub-national ones (as in Spain and Germany). Larger municipalities, however, may in some countries have the power to issue ordinances setting more stringent requirements and have more discretion in compliance assurance. For example, Spain's Autonomous Communities decide how much power to give to the local authorities, and some municipalities (e.g. Zaragoza) have historically strong environmental enforcement programmes. In Japan, there are several dozen nationally designated metropolitan area municipal governments (usually for cities with a population of over 500,000) that have permitting and enforcement responsibilities equal to those of the prefectures (sub-national governments). There are many cases of big municipalities having more inspectors than a regional government.

2.3 Organisational Aspects of Decentralised Compliance Assurance

The division of compliance assurance responsibilities across levels of government has a direct impact on the internal operational organisation of respective environmental enforcement authorities.

In the countries where the national environmental authority plays a major enforcement role in a decentralised system, it usually operates through *regional offices*. This is the case in the US, Mexico, Canada and the Netherlands, among others. In several countries, such as Spain and the US, some sub-national environmental authorities, especially in larger jurisdictions, also have territorial offices (which, however, commonly do not have full enforcement powers).

The US EPA headquarters is primarily responsible for setting national compliance policy, investigating and pursuing all criminal cases as well as non-criminal cases raising nationally significant issues, monitoring regional and state activities, and providing technical support. The ten Regional Offices generally take the primary responsibility for performing site inspections, handling non-criminal cases that fall under national enforcement initiatives, issuing administrative orders and preparing judicial actions where states do not take timely and appropriate enforcement action, monitoring compliance with administrative and judicial orders, and providing support to the U.S. Department of Justice for ongoing judicial enforcement cases.

Mexico's Federal Attorney for Environmental Protection (PROFEPA), a decentralised agency under the national environmental agency, enforces environmental legislation on industrial activities and natural resource management across the country using a system of delegations. Since the mid 1990s, PROFEPA delegations have progressively been given greater authority and autonomy, including the right to take legal action in cases of administrative and criminal violations of environmental laws (in coordination with state and local authorities).

Regional offices provide significant benefits in promoting nationwide consistency of enforcement through oversight of sub-national (and local) competent authorities and, when necessary, direct enforcement actions. They may, depending on the country, enjoy some degree of latitude in adapting the headquarters' direction in a way they believe best suits their jurisdiction, thereby accentuating the inter-jurisdictional differences. In the US, the Regional Offices represent a wide spectrum of enforcement approaches: while some Regions pride themselves on being "best enforcers" and resort to formal enforcement tools more quickly and frequently, others are more inclined to start with communicating with regulated entities, compliance assistance and other informal actions before moving to formal enforcement. The relationship between a Regional Office and the states under its jurisdiction also ranges from fairly adversarial to more cooperative, with an open federal-state dialogue.

At the local level, the operational organisation of environmental compliance assurance primarily depends on the municipality's powers and resources (both are often directly linked to its size). Small municipalities frequently lack the means to have a fully fledged inspection and enforcement programme and prefer to pool resources with neighbouring communities to create *inter-municipal environmental agencies*.

For example, roughly a third of Dutch municipalities have established 26 shared service centres executing permitting and compliance assurance responsibilities on their behalf, thereby significantly improving the efficiency and effectiveness of their environmental activities[7]. The most prominent case of such cooperation is the Rijnmond Environmental Protection Agency (DCMR) in the larger port of Rotterdam area in the Province of South Holland, which is the largest regional environmental agency in Europe with about 550 staff, including 95 inspectors.

As part of a growing nationwide trend, there are about 30 examples of joint EEAs across Sweden, including some cases of cooperation between neighbouring local authorities from different counties. Spain's Autonomous Community of Aragón has delegated the competency to issue environmental permits to small facilities and to inspect compliance with them to *comarcas*, which are traditional communities of several municipalities.

[7] Some of these "service points" perform only the information support function but no permitting or compliance assurance responsibilities.

2.4 Distribution of Financial Resources

In order for sub-national and local authorities to carry out their compliance assurance mandate, they must have sufficient financial resources. These resources normally come from three sources:

- General state, regional or local budgets;
- Targeted grants from the national government; and/or
- Permit or inspection fees levied on the regulated community.

General tax revenues are the primary funding source for sub-national and municipal environmental budgets. In Spain, the State transfers the Autonomous Communities' share of taxes to their budgets (except in Navarra and Basque Country which collect their taxes and then transfer a share to the state) without any conditions[8]. Sweden's County Administrative Boards (which do not levy their own taxes) get their funding from the Ministry of Finance, but the budget allocations are not earmarked for environmental compliance assurance.

Box 2. US Federal Environmental Grants to State and Tribal Governments

The federal environmental grants are agreements to implement the "authorised programmes" and carry certain obligations are awarded yearly or for multiple years in advance. States must apply describing how they will use each grant to implement certain aspects of the national and state programmes, including enforcement. Sometimes states must commit to provide matching funding.

Since 1996, Performance Partnership Grants (PPGs) allow states to combine two or more environmental programme grants into a single PPG. With PPGs, states can direct EPA grant funds to priority environmental problems or programme needs and implement multi-media approaches and initiatives that are difficult to fund under traditional programme-specific grants. However, the EPA imposes grant-related performance requirements whether or not a state chooses to use the PPG format.

Should a state fail to conform to the conditions of the grant agreement, the EPA may withhold its grant funds as a sanction. For example, Region VIII sometimes temporarily withholds 20% of PPG funds as a lever to make states comply with demands to improve their enforcement programmes. However, funds withholding may further aggravate the problems of the state programme, so the EPA uses this option very rarely, focusing instead on constructive assistance to improve state programmes. The Clean Air Act provides a possibility (albeit never used to date) of an even greater sanction by allowing the EPA to stop the much larger transportation grants for interstate highway construction if a state fails to implement its air programme.

The EPA Office of Enforcement and Compliance Assurance (OECA) has also been providing smaller State and Tribal Assistance Grants (STAGs) to enhance the capacity of states and tribes to carry out compliance assurance activities without directly supporting their compliance and enforcement programmes. In1999- 2009, the EPA supported 124 projects (worth USD 19 million) addressing state and tribal inspector training, programme planning, performance measurement and data quality and management. The OECA STAG programme was terminated at the end of FY 2010 due to budget cuts.

Source : OECD (2009), www.epa.gov/compliance/state/grants/index.html.

[8] There are a limited number of special programmes funded by the national government through bilateral agreements, but those are not related to compliance assurance.

The US has an extensive practice of federal environmental grants to state and tribal governments for the implementation of the authorised water, air, waste, pesticides, and toxic substances programmes (see Box 2). Environmental programme grant funds can only be spent on activities that fall within the statutory and regulatory boundaries of that programme. US Congress allows for funding of up to 60% of programme costs (the exact percentage varies by statute), which may include permitting, inspections, enforcement, monitoring, standard setting, site cleanup, etc. However, in reality the federal portion of funds to support authorised programmes is around one-quarter of the funds required, with the rest covered by state funds. Still, the federal funds are important to states because they are targeted at specific programmes and help states meet federal requirements in permitting, enforcement, monitoring, etc.

In other OECD countries, targeted grants are used much less. In Switzerland, for example, federal subsidies account for only about one percent of the cantons' environmental expenditure.

More and more EEAs have to recover at least part of their operational costs via administrative fees imposed on operators of regulated installations. For most US states, permit fees constitute the largest component of the state environmental agencies' budgets. In Sweden, inspection fees account for up to 75% of municipalities' environmental programme outlays. The fees are usually based on the regulator's labour costs defined for different categories of regulated facilities (depending on their size and complexity). The Swedish Association of Local Authorities provides guidelines for the charging of inspection fees by municipalities: they are annual for hazardous facilities and per hour of inspection for others.

In all the studied countries, environmental agencies, particularly at the sub-national and local levels, face growing responsibilities but declining public funding. This financial gap between the available resources and the needs to meet programme objectives is usually more acute in smaller, rural, less economically developed jurisdictions, contributing to inequities of policy implementation. Moreover, there is a legitimate concern that current and future budget cuts could affect these agencies' ability to maintain adequate regulatory and enforcement programmes. For instance, the EPA of the US state of Illinois had to raise the permit fee rates by more than an order of magnitude to compensate for the loss of state budget appropriations (OECD, 2009). However, many local governments find it difficult to secure stakeholder or political support for fee increases during the times of the economic crisis. To mitigate the budget cuts, EEAs need to improve internal efficiencies and reduce administrative costs (e.g. by better targeting of compliance monitoring and enforcement, see Section 3.2).

3. CONSISTENCY OF ENFORCEMENT STRATEGIES AND INSTRUMENTS

Although some variation in environmental enforcement is necessary to take into account local conditions and local concerns, core nationwide regulatory requirements must nonetheless be consistently implemented to ensure fair and equitable treatment of the regulated community. Consistent enforcement should imply a high level of diligence on the part of enforcement authorities, which should strive to achieve a high level of compliance rather than fall back on uniformly lax compliance assurance practices.

The consistency of environmental enforcement across jurisdictions covers such programme elements as the detection of non-compliance, the selection of enforcement response, the imposition of comparable penalties for similar offences, as well as the manner in which enforcement data are reported and used for performance measurement. In fact, in the absence of complete and accurate data it is difficult to evaluate the consistency of enforcement across the country. This chapter analyses the challenges of coherent implementation of these programme elements in decentralised systems in terms of both the approach to compliance assurance and the choice of specific tools.

3.1 Data Completeness and Accuracy

One of the biggest challenges in promoting national coherence of compliance assurance lies in actually knowing how the regulatory requirements are complied with and enforced at the sub-national and local levels. Having adequate performance data is key to assessing whether there are significant variations in the law implementation practices that should be addressed.

Yet, in many OECD countries with decentralised enforcement functions, national environmental authorities have very little quantitative information on the lower level EEAs' activities and results. For example, according to the Swiss Environmental Protection Act (Article 44), the federal government has the right to "check the effectiveness of measures taken in terms of this Act". However, in practice there is no reporting by the cantons to the Federal Office for the Environment. Attempts by the national government to impose additional reporting requirements on the sub-national EEAs (let alone local authorities) generally face resistance as an encroachment on these authorities' autonomous powers.

The US is one of the few countries with a well developed nationwide data system on environmental compliance and enforcement. The Online Tracking Information System (OTIS) is a set of internal web-based search and reporting tools which contains compliance status and inspection and enforcement history for more than 800,000 facilities covering air, water and hazardous waste programmes, including basic permit data and US EPA and state data on inspections and violations by type and pollutant. Its search engines send queries to the Integrated Data for Enforcement Analysis (IDEA) system, which copies many EPA and non-EPA databases monthly and organises the information to facilitate cross-database analysis. OTIS is available to the EPA, other federal agencies as well as state, tribal and local governments, allowing their staff to access a wide range of data relating to enforcement and compliance.

However, there are substantial differences between enforcement and compliance data maintained in state information systems, compared to the same types of data sent to EPA national compliance data systems (ECOS, 2006). The reasons for these include problems with interpretation of EPA guidance for the use of various data systems, differences between the EPA's and a state's definitions of actions (e.g. inspections, enforcement actions) and methods for determining specific indicators, problems with timely

data submissions by states, database flaws, etc. States complain about having to spend resources to fill in EPA databases: many states maintain their own databases to manage their programmes and do not want to use the national ones. In an effort to address these concerns, the EPA made increasing the completeness, timeliness, accuracy and quality of compliance and enforcement data a major objective of its 2009 Clean Water Act Action Plan (US EPA, 2009). In addition, the EPA has initiated a Central Data Exchange Network to develop agreed-upon protocols for transferring information. Although many programmes have benefitted from this standardisation, some have not yet fully integrated the new technology.

National environmental authorities in several other countries are also currently working to design or improve data systems to help them evaluate the performance at the sub-national level. These efforts are discussed in Section 4.2.

3.2 Targeting of Compliance Monitoring

Targeting of inspections on facilities engaged in activities with a potentially higher impact on the environment or with poor compliance records allows competent authorities to increase the detection of non-compliance, enhance the efficiency of their work under increasing resource constraints and reduce the unnecessary administrative burden on other regulated businesses. The trend toward risk-based targeting of compliance monitoring is present in most OECD countries (OECD, 2009). The issue affecting the consistency of compliance assurance is whether EEAs in different jurisdictions use comparable methods of planning and conducting inspections and whether the inspection plans are duly implemented.

Sub-national and local EEAs responsible for ensuring compliance with national environmental laws may be bound by minimum frequencies of inspections set in national regulations for some categories of facilities (as is the case in Switzerland for air emission sources exceeding a certain emission threshold). Alternatively, the national environmental authority may provide more or less detailed guidance on how to target compliance monitoring (as in the Netherlands and Sweden) or leave this completely up to the sub-national EEAs (as in Spain). The overlapping inspection responsibilities between the national and sub-national EEAs (as in the US) require joint prioritisation of inspection programmes.

Every EEA in Sweden is obliged by the Inspection Ordinance (1998) to prepare a comprehensive annual plan with inspection priorities for the coming year. The plan should be based on the 16 national environmental quality objectives set by the Swedish Parliament and adjusted to local or regional conditions. This means that inspections should be primarily concentrated on such activities, operations and installations that are important for meeting the regional and local environmental targets that reflect the national objectives and where inspection is considered an effective way of improving environmental conditions. However, different County Administrative Boards use different methodologies (electronic spreadsheets, paper scoring sheets, etc.) to prepare an inspection schedule, with available resources playing a major role in the operational planning. Most Swedish municipalities plan their inspections based on the minimum requirements of the national Ordinance on Environmentally Hazardous Activities and Health Protection (1998) as well as the guidance developed by the Swedish Association of Local Authorities and Regions. The latter takes into account the type and size of a facility and its self-monitoring programme to determine the inspection frequency and the respective administrative fee (annual or hourly).

This combination of national minimum requirements and guidance (including the “Guidebook on Operational Inspection” issued by the Swedish EPA) provide for the relative uniformity of compliance monitoring practices across the country. In addition, issue-specific national or regional inspection campaigns are conducted quite frequently. Such campaigns involve both CABs and municipalities and draw upon standard inspection manuals or checklists.

In contrast, there are important differences among Spanish regions in their approaches to compliance monitoring. While EEAs in most Autonomous Communities are only planning to introduce risk-based inspection targeting, Navarra's Department of Rural Development and the Environment uses its own software tool to produce an annual Industrial Activity Environmental Inspection Programme. The tool, inspired by the Operational Risk Appraisal (Opra) scheme employed by the Environment Agency (England and Wales) in the UK, prioritises the inspection activities by assigning a risk-based score to each regulated installation on the basis of its complexity (by type of activity), amount of pollution releases (via an emission index), location, and the operator's environmental management system.

In the US, the differences between states in the approach to, and quality of, compliance monitoring are to some extent mitigated by the direct involvement of the federal EPA. Some states strive to identify violators and pursue aggressive enforcement, whereas others view themselves as partners with industry and adopt a more cooperative approach. Some state compliance monitoring programmes are not funded at the level to maintain a robust compliance monitoring programme, and EPA Regional Offices try to compensate this by conducting more inspections. The EPA also conducts a few oversight inspections of facilities inspected by the state to evaluate the effectiveness of state compliance monitoring programmes. However, the EPA does not impose specific inspection planning methods on state regulatory agencies.

There is generally a concerted effort made to create a reasonable level of cooperation between the US EPA and states in terms of inspection coverage: the Regional Offices develop annual inspection plans (usually by statutory programme) in close discussions with their state counterparts. The delegation of core enforcement programmes to states has allowed the EPA to focus its compliance monitoring and enforcement efforts on national initiatives (e.g. mineral processing, land-based gas extraction and production, concentrated animal feeding operations, and stationary sources of air emissions). These national initiatives are selected based on three criteria: significant environmental risk, facilities or sectors demonstrating a pattern of non-compliance, and an issue the federal government is best suited to address. Some states request the EPA to inspect large facilities for which the EPA requires a certain inspection frequency (as part of the programme authorisation) so that it can focus on small facilities with significant cumulative environmental impacts that are a priority for the state. Other states prefer to have minimal EPA involvement in their compliance monitoring and enforcement programmes.

Overall, it is up to the national EEA to ensure consistent compliance monitoring practices at the sub-national level within the bounds of its powers. Depending on the division of environmental regulatory responsibilities between the levels of government, the methods of doing so range from setting priorities and minimum requirements to providing guidance and encouraging communication between the national and sub-national authorities. These issues are further discussed in Sections 4.1 and 5.4.

3.3 Choice and Timeliness of Enforcement Response

The way in which similar environmental offences are responded to by EEAs across the country goes to the core of the issue of a nationwide level playing field. Depending on the case (and, of course, the country's general administrative and criminal statutes), appropriate non-compliance responses could include warning letters for minor infringements, administrative orders and sanctions, or criminal prosecution for most serious violations[9].

The question of which enforcement response is appropriate, and whether formal action is warranted at all, is generally addressed in the law (an environmental law or the administrative or criminal/penal code)

[9] The US represents a special case where civil judicial enforcement actions can be sought by the government for any breach of law as well as when an operator does not comply with an administrative order. These actions are brought on behalf of the public as a whole and do not seek compensation for specific private parties.

and may be further dealt with in an agency's enforcement policy, which is usually statute-specific. Enforcement response policies normally classify types of violations and indicate appropriate responses to them, as well as the timeline in which those violations must be addressed.

In many countries, EEAs do not have individual enforcement policies because the appropriate enforcement responses are determined by the legislation (national or sub-national). In Sweden, for example, regulations under the country's Environmental Code stipulate that the regional and local EEAs must impose administrative fines (so-called "sanction charges") for about 50 types of (relatively minor) offences, but for others they have to refer the case to a prosecutor for criminal enforcement.

Even where the national EEA develops clear enforcement policies and guidance, they often provide latitude that is wide enough for sub-national (and/or local) EEAs' enforcement actions to differ substantially. The US EPA, for instance, has long-standing statute-specific Enforcement Response Policies that describe how the Agency will treat violations and the actions that should be taken. These policies are to a great extent translated, through federal-state agreements, into states' own enforcement guidelines.

Still, there are significant differences in enforcement approaches not just across states but also across EPA Regions. Some Regions rely predominantly on fines and other traditional enforcement methods to deter non-compliance and to bring violators to compliance while others place greater reliance on alternative strategies such as compliance assistance. Regions and states also differ as to whether deterrence can be best achieved through a small number of high-profile, resource-intensive cases or a larger number of smaller cases that establishes a more widespread but lower profile enforcement presence. State and EPA data indicate that formal enforcement action was taken against only approximately 26% of facilities in significant non-compliance in 2008. For smaller facilities, states report taking enforcement action against less than 6% of facilities with a serious non-compliance problem (US EPA, 2009).

One of the most common variations between states is in their authority (defined in state laws) to respond to non-compliance through administrative action rather than relying solely on civil judicial action (which is more time-consuming and resource-intensive). States are often reluctant to refer cases to legal authorities because of the delays and, as a result, fail to appropriately respond to non-compliance. In those states without administrative authority to assess penalties, the EPA's role becomes more important.

There is also an important issue of coordination of non-compliance response between EEAs of different levels having enforcement powers in the same jurisdiction. In the US, a state agency may refer a case to the EPA Regional Office if it considers that the EPA is better positioned to handle a particular violator. For example, the EPA tends to enforce against municipal wastewater treatment plants because states feel uncomfortable assessing penalties against them. In Spain, there are similar cases of referral of violations by the municipality to the regional EEA to take administrative actions. While such referrals contribute to more consistent enforcement, they require effective communication between the respective competent authorities.

3.4 Size of Monetary Penalties for Non-compliance

A major part of the challenge of ensuring consistency of non-compliance response is the issue of assessing monetary penalties for violations. It is unlikely that any two enforcement professionals could look at the same violation, consider the same calculation factors, and come up with precisely the same penalty amount. However, one could reasonably expect that the penalties for similar offences would be in the same broad range and calculated using a consistent approach.

Monetary penalties can be fixed (usually for minor offences), variable or coercive. Fixed fines do not pose a consistency problem because an EEA does not have any discretion in assessing them: as, for

example, in Sweden they are stipulated in a regulation for specific types of infringement. Sweden, Norway, the Netherlands and several other countries use coercive (or conditional) fines that are linked to a compliance order and are determined by the EEA on the basis of an estimate of the cost of prescribed corrective actions. The fine is imposed if the operator does not comply with the order. If coercive fines are applied throughout the country, they do not present an equity concern.

There are two principal approaches to determining the level of a variable administrative or judicial (criminal and, in the US and Australia, also civil) fine. In some systems, the legislation lists a range of elements to be taken into account by an agency or a court when assessing the penalty. In other cases, the competent authority develops detailed guidelines for the application of penalties. The size of a variable fine may depend, among others, on the violator's intent and prior compliance record, potential risk to the environment or human health from the offence, and the operator's economic benefit from non-compliance.

In decentralised systems, there may be and often are significant variations between different administrative levels and across jurisdictions in the size of penalties assessed. Among the key factors that contribute to such variations are:

- Differences in the approaches among enforcement agencies about how to best achieve compliance with environmental requirements – some EEAs favour more aggressive enforcement while others give preference to a more cooperative relationship with the regulated community;

- Economic and political influences resisting "excessively harsh" treatment of local businesses (the lower the level of an EEA, the more susceptible it is to such pressures) – as a result, fines imposed by a local authority are generally lower than those assessed by a sub-national EEA (and lower yet than those of the federal agency, as the case may be) for similar violations;

- Variations in resources available to different EEAs – competent authorities with stricter resource constraints tend to impose a smaller penalty than they believe is warranted to avoid appeals or litigation that would otherwise consume considerable resources.

In an effort to minimise such differences, the US EPA has established penalty policies that specify the dollar amount assigned to classes of violations and a national model (called BEN) that can be used to calculate and recover as part of a fine the operator's economic benefit from non-compliance so that violators do not gain an economic advantage over law abiding competitors. Across the states, some states' penalty policies provide for the recovery of economic benefits in accordance with EPA guidelines, but others' do not. In the mid-1990s, the US EPA proposed recovering the economic benefit as a requirement for the delegation of a hazardous waste management programme to states, but this proposal was abandoned due to substantial state resistance. If the economic benefit recovery were required and a state failed to implement it, the EPA would have to either file its own enforcement action "on top" of the state's or move to withdraw delegation the state's programme authorisation altogether. Both steps are politically contentious. The latter is extremely rare for political, practical, and resource considerations.

Although there is a trend in OECD countries to increase the proportionality of monetary penalties by linking them closer to the financial benefits the violator arising from non-compliance, the issue remains very controversial, particularly at the local level, because of the potentially hefty size of resulting fines[10]. Both the absence and the inconsistent use of economic benefit recovery distorts considerably the level playing field.

[10] For example, this was the reason for the rejection of a recent attempt by the regional EEA in Navarra (Spain) to introduce a legal provision for economic benefit recovery from hazardous waste management violations.

4. PRIORITY SETTING AND OVERSIGHT MECHANISMS

In most decentralised systems with national-level environmental legislation, national authorities have at least a limited responsibility to set priorities for and oversee its implementation by sub-national and/or local EEAs. In some countries, sub-national authorities also oversee compliance assurance activities of municipalities. This oversight is conducted via performance reviews and different degrees of intervention in case an EEA's performance needs improvement. This chapter focuses on such formal mechanisms of "vertical" interaction between competent authorities at different administrative levels.

4.1 Priority Setting

Decentralisation of compliance assurance functions under national environmental laws may be based on the implementation of national policies and guidelines, or sub-national and local authorities may have the freedom to develop their own. As discussed in Section 3.2, different compliance monitoring and enforcement priorities of sub-national and local EEAs (reflected in inspection campaigns, more frequent inspections in more problematic sectors) may negatively affect the national consistency of compliance assurance. In order to address this concern and to increase the overall efficiency and transparency of compliance assurance activities, national environmental authorities (even those that do not have direct enforcement powers) increasingly use problem-oriented strategic planning to define enforcement priorities that generally guide the targeting of compliance monitoring at the sub-national and local levels.

In the US, priority setting and targeting, both done with greater use of data, are becoming increasingly crucial to EPA and state compliance and enforcement programmes, particularly as environmental regulatory programmes grow in scope and complexity whereas their resources are stagnant or declining. National enforcement initiatives, set by the EPA Office of Enforcement and Compliance Assurance (OECA) and reviewed every three years, provide an opportunity for the EPA and states to work jointly to solve some of the most complex pollution problems. The EPA provides leadership on the implementation of the national initiatives and encourages states to undertake activities and direct resources towards efforts that will contribute to achieving results in the national enforcement initiatives.

Since 1995, the EPA and states have been implementing the National Environmental Performance Partnership System (NEPPS). NEPPS is a performance-based system of environmental protection designed to improve the efficiency and effectiveness of state-EPA partnerships. Furthermore, EPA Regions and states increasingly develop common strategies to achieve specific environmental results and address priority needs. These negotiated strategies commonly take the form of a Performance Partnership Agreement (PPA).

The EPA has been working with the Environmental Council of the States (ECOS, see also Section 5.2) to improve federal and state compliance assurance efforts by (a) enhancing and aligning state and EPA planning processes and (b) integrating state strategic thinking into national planning and decisions on resource allocations. One example is the annual compliance assistance and enforcement planning session that has been held for the past 12 years between Region I (New England) and the six New England states (Snow and Graves, 2007). Another co-benefit of this collaboration is the reduction of transaction costs associated with negotiated federal-state agreements. This mechanism also allows the EPA to provide oversight of both regional and state enforcement of environmental laws throughout the nation.

Similar national priority setting arrangements exist in many other OECD countries. Box 3 presents the example of administrative agreements between the federal and provincial and territorial governments in Canada. Bilateral (and sometimes multilateral) collaboration agreements are also very common in Spain and are concluded between the Ministry for the Environment, Rural and Marine Affairs and regional environmental authorities on a variety of subjects, particularly on issues touching upon national-level competencies, such as river basin and coastal zone management.

Box 3. Setting National Environmental Priorities through Intergovernmental Agreements in Canada

Under Section 9 of the Canadian Environmental Protection Act (1999), the federal government may negotiate an agreement with provinces and territories for the purpose of promoting coordinated environmental management. These agreements are work-sharing arrangements that can cover any matter related to the administration of the Act and represent cooperation and coordination of efforts to focus priorities for future actions. Administrative agreements ensure that provinces and territories enforce the statute in a consistent manner. They usually cover inspections, enforcement, monitoring and reporting, with each jurisdiction retaining its legal authorities. The agreements also spell out procedures for measuring performance.

Most such intergovernmental agreements are concluded under the aegis of the Canadian Council of Ministers of the Environment (CCME) – a forum which brings together 14 federal, provincial and territorial environment ministers to develop national strategies, norms, and guidelines promoting effective implementation of environmental laws across the country. The CCME meets at least once a year to discuss national environmental priorities. In 1998, CCME members signed the Canada-wide Accord on Environmental Harmonization – a framework agreement that establishes the common vision, objectives and principles that govern the partnership between jurisdictions and the development and implementation of sub-agreements. (Quebec did not sign the Accord but committed to implement it under its provincial authority.)

One of three sub-agreements under the Accord, the Canada-wide Inspections and Enforcement Sub-agreement (2001) serves as an enabling framework for subsequent bilateral and multilateral implementation agreements that:

- Identify a process to set priorities for inspection and enforcement programmes; and
- Elaborate a work-sharing approach for inspection and enforcement activities related to environmental laws, including the development of compatible methods, data, procedures and practices;
- Address resource implications of the obligations that a jurisdiction might have to assume through the implementation of relevant agreements.

The Inspections and Enforcement Sub-agreement contains a number of criteria to determine which government is best positioned to carry out inspection activities in a particular case. In practical terms, a federal inspector may usually verify compliance with federal, provincial and territorial environmental regulations in the case of a facility on federal lands, and vice versa. The precise split of responsibilities is defined in bilateral and multilateral implementation agreements which are typically focused on regulation of specific substances.

Source : Environment Canada (www.ec.gc.ca/CEPARegistry/agreements); Canadian Council of Ministers of the Environment (www.ccme.ca).

It is also very important to coordinate enforcement priorities between "parallel" competent authorities operating in the same jurisdiction. One case in point is the competing priorities between regional and local EEAs and environmental police in Spain. The Civil Guard's Nature Protection Service (SEPRONA) works under the Interior Ministry and covers the entire country (national police is a separate force). SEPRONA can detect both administrative offences (and refer them to relevant regional or local authorities EEAs) and crimes/misdemeanours (and refer them to the prosecutor). SEPRONA usually reacts to complaints, but may also address priorities defined at the national level (e.g. illegal waste dumps). There is an agreement at

the national level with the Interior Ministry regulating environmental inspection collaboration with SEPRONA. However, some Autonomous Communities are still looking for the best way to coordinate priorities with SEPRONA, which usually has a larger staff in the region than the number of regional environmental inspectors.

In order to address this type of challenge, Dutch national, interagency enforcement priorities are set by the National Environmental Enforcement Cooperation Secretariat. At the provincial level in the Netherlands, priorities are established in a four-year Provincial Environmental Management Plan and equivalent programmes related to water management. Specific priorities are sometimes added to the plan on the basis of evidence of non-compliance issues in the province. In Sweden, the national priorities for environmental compliance assurance heeded by all EEAs stem directly from the 16 national environmental quality objectives. The issue of coordination beyond principal EEAs is discussed in Section 5.1.

4.2 Performance Reviews

A review of performance of lower-level EEAs is the primary instrument for the higher-level competent authority to oversee the implementation of common (usually national) environmental legislation. Performance reviews (or audits) provide consistent and predictable baseline oversight across sub-national (or local) jurisdictions, acting as a safeguard against a "race to the bottom" of weak enforcement due to inappropriate local influences. They also contribute to more effective work sharing among authorities at different administrative levels, develop better communication and mutual understanding between them and offer opportunities to share best practices and innovations. Depending on the country's legal and institutional framework for environmental decentralisation, two types of performance reviews can be distinguished:

- Systematic performance reviews associated with routine reporting requirements for lower-level EEAs. Systematic reviews are based on a consistent set of elements and metrics, establish consistent criteria for performance evaluation and consistent general guidelines for response to identified problems; and

- Ad hoc reviews under a general oversight mandate which does not include any routine reporting to upper-level authorities. Ad hoc reviews can be comprehensive or selective in terms of issue coverage and can cover all the EEAs in a country or a region, or single out just a few.

The US EPA's Enforcement and Compliance Assurance State Review Framework (SRF) is an example of an elaborate systematic performance review scheme (see Box 4 for its detailed description). When the SRF was created jointly by the EPA and the states, the driver for the states was to ensure an economic level playing field with their neighbours as well as to eventually limit federal intervention in the case of a positive evaluation. The initial purpose of the EPA was to be able to improve the effectiveness of the core enforcement programmes and to communicate a national picture of compliance assurance programmes across the country, but not to develop a ranking or a scorecard of state performance.

However, having identified in the first round of reviews that enforcement levels across states varied considerably, the EPA management is looking to identify states whose performance falls below acceptable levels in order to direct resources toward greater EPA oversight in those states.

Box 4. US EPA's State Review Framework

The Enforcement and Compliance Assurance State Review Framework (SRF) was established in 2004 as a tool to evaluate state performance under core compliance and enforcement programmes (major stationary sources of air pollution, point source wastewater discharges to surface waters, and hazardous waste management) in a nationally consistent manner. The Framework embraces the principles of the National Environmental Performance Partnership System which provide a mechanism for joint planning and programme management between the EPA and states. The EPA Regions (for authorised programmes) and Headquarters (for regional programmes where the EPA has direct implementation authority) and are using the SRF to ensure they comply with the applicable minimum federal legal requirements, policy and guidance.

The scope of the review includes twelve elements covering compliance monitoring, civil enforcement and data management, and, as optional elements, compliance assistance, self-disclosure initiatives, and innovative programmes. Reviews currently cover primary permitting programmes under the Clean Air Act, Clean Water Act and Resource Recovery and Conservation Act (hazardous waste management). The national template for the review is a common set of measures derived from existing national enforcement and compliance monitoring policies. Information is collected from data in state and national data systems and through reviews of state files. The data metrics are primarily organised around the following elements of state enforcement programmes:

- Data quality (completeness, accuracy, and timeliness of data entry);
- Inspections performed and associated coverage of facilities in a given universe;
- Violations or significant violations discovered and reported (including their frequency);
- Enforcement actions taken in a timely and appropriate manner; and
- Penalties correctly calculated, imposed and collected.

The national metrics are used as a first barometer of performance. In addition, states may also provide other data (on the context, resource constraints, and outcomes). Management discussions and sometimes in-depth review of inspection and enforcement files are also conducted.

The EPA conducts regional and state reviews at a minimum once in four years. The precise frequency of state reviews is determined by state performance (e.g. Region VIII reviews states with better performance every four years, states with adequate performance every three years, and "problematic" ones every two years). Some Regional Offices also do targeted annual reviews of selected states with identified performance problems. The EPA completed the first full round of reviews in 2004-2007 and expects to complete the second round in 2012.

Upon completion of the review, the state's performance on each of the twelve elements is rated as exemplary, meeting requirements, having minor problems that can be handled by the state, or having problems that the EPA requires the state to address. A review report identifies issues for improvement which are then addressed collaboratively. Agreed upon measures are usually captured in future federal-state grant agreements. States that meet minimum standards of performance are reviewed less frequently, while those that do not become subject to enhanced federal oversight (see Section 4.3).

The EPA has recently developed an internal EPA/state website within the OTIS and provides monthly updates on key metrics. This site allows states and regions to benchmark progress toward goals within the Framework. In addition, a page on the EPA website (http://www.epa.gov/compliance/state/srf/index.html) contains all SRF reports and recommendations. The publication of state review data contributes to the improvement of its quality, as states know the public will see the data and put more effort into managing it well.

Source : EPA interviews, June 2010; www.epa.gov/compliance/state/srf/index.html

It is likely to be quite difficult to get states' acceptance of benchmarking because many states resent being seen in an unfavourable light based on what they claim to be inaccurate data (see Section 3.1 for a discussion on data completeness and accuracy). To substantiate the benchmarking, the EPA would need more reliable information, which is hard to obtain without going on the ground (e.g. to check the quality of permits subject to enforcement as well as inspection and enforcement files). Not only would that be politically sensitive but also very time and resource-consuming.

Ultimately, the resource intensity is the SRF's greatest challenge. To reduce the cost burden of the reviews, the SRF uses programme data already required to be reported to the EPA (and focused exclusively on compliance assurance activities, or outputs) as a starting point in order to identify strengths and potential problems where additional information may need to be gathered. While states also deplore the absence of outcome-focused indicators (which, they allege, limits their flexibility of approaches and tools in achieving compliance), putting outcome measures into the SRF may be costly as very few states presently use outcome measures.

Other countries with advanced performance review programmes face similar challenges. In the Netherlands, provincial and municipal inspectorates have been subject to performance audits by the national VROM Inspectorate which has established a set of "quality criteria" for all EEAs in the country[11]. These criteria are also mostly process-related and cover items from inspection targeting to working methods to quality assurance. An audit results in a list of recommendations, mostly with respect to internal management of compliance assurance activities, which should form the basis of an improvement programme of the relevant competent authority. Two rounds of such comprehensive audits have been conducted for the municipalities and one for the provinces. However, the VROM Inspectorate recently decided, for the reasons of efficiency and political sensitivity, to make the performance reviews selective and targeted on competent authorities with known management problems.

Ad hoc performance reviews usually focus on specific issues and rely on questionnaires and interviews. For example, the Swedish Environmental Protection Agency performed in 2009 an evaluation of the use of inspection plans by County Administrative Boards as well as a review of inspection and enforcement guidance documents produced by CABs. Similarly, CABs, using their right to ask for data from the local authorities, conduct occasional questionnaire-based reviews of municipal Environmental and Public Health Committees. Their focus is also typically more on the organisational management of the inspection process than on its results.

The lack of routine compliance assurance data reporting (apart from annual reports produced primarily for public relations purposes), most often due to the political and/or institutional autonomy of sub-national and local competent authorities, is one of the key obstacles to the establishment of systematic external EEA performance reviews. In addition, some competent authorities (even national ones like the Swedish EPA) are not convinced that the value of routine reporting is worth the effort that sub-national and local enforcement officials would have to put into it.

Another impediment is the dissimilarity of performance indicators that sub-national and local EEAs use for their internal performance management (which would otherwise have been a good entry point for interagency comparison). While some EEAs have developed fairly sophisticated indicators as part of their certification to the ISO 9000 quality management system (like the municipality of Pamplona in Spain) and/or the ISO 14000 environmental management system, their peer authorities in the same country or even region use very rudimentary performance measures.

[11] Officially, it is the provinces who must oversee municipalities' performance. In practice, however, the provinces are often reluctant to intervene in municipalities' affairs, so the VROM Inspectorate watches over both levels of competent authorities, albeit without unnecessary interference.

As already mentioned in the case of the US, there is a demand for measures of compliance assurance outcomes to be part of EEA performance reviews. For example, in 2009 the Swedish EPA launched a large three-year research project to develop outcome indicators for the evaluation of the country's EEAs. Likewise, the Swiss Federal Office for the Environment is currently trying to develop a comprehensive system of "environmental observation" by extending the information reported by the cantons from just environmental quality measures to some indicators of effectiveness of the cantonal competent authorities[12].

Performance reviews by upper-level authorities are not the only type of cross-jurisdictional evaluation that helps ensure a level playing field for the regulated community. In an interesting experience in Sweden, some 80 local authorities belonging to the Stockholm Business Alliance send out a questionnaire every two years to solicit views from regulated business on the EEA's performance. The questions touch upon how well inspectors perform their duties and how effective they are in providing relevant information. The rate of response to these questionnaires is usually quite high, about 60-70%. The comparison of results across municipalities provides a subjective but nonetheless valuable perspective on the differences in compliance assurance practices. With a similar objective, local governments in England and Wales (which have substantial enforcement responsibilities) have created a voluntary Link Authority system to engage in industrial sector-specific networking as well as peer review and benchmarking exercises on environmental compliance.

4.3 Intervention of Upper-level Authorities

The possibility for a national environmental authority to intervene in the compliance assurance programme executed by a sub-national or a local EEA (or for a sub-national EEA to get involved in a municipality's area of competence) is determined by the country's legislative framework for environmental governance. In decentralised systems, it is usually limited to cases where lower-level authorities implement the laws of a higher jurisdiction and where the higher-level authority has an explicit oversight function. Such intervention (which does not include capacity building, addressed in Section 5.4) may be triggered by one of the following:

- Problems identified in a performance review;
- A request (or case referral) from the lower-level EEA[13]; or
- An administrative appeal or a complaint from the regulated community or the public.

An oversight intervention can be very different depending on the seriousness of the identified implementation problems and the degree of cooperation between the two authorities. Based on the results of the State Review Framework, US EPA Regional Offices commonly use the following hierarchy of oversight responses:

- The Regional Office and the state work together to precisely define the state's deficiencies, then develop a schedule for implementing needed changes;
- The Regional Office and the state jointly develop a plan within the framework of a Performance Partnership Agreement and/or a relevant federal grant agreement;

[12] For more analysis on the issue of outcome performance measures of environmental compliance assurance, see Mazur (2010).

[13] This may happen in systems where the upper and lower-level EEAs' competencies overlap, as they do between the federal EPA and states in the US or between regions and municipalities in Spain. Being an initiative of a lower-level EEA, this situation is not discussed here further.

- The state is accorded increased levels and frequency of oversight during the plan's implementation to ensure progress and to identify and deal with issues as they arise (this may include reviews of penalty decisions and doing more oversight inspections of regulated facilities);

- If this approach is not effective, additional responses may include direct EPA intervention via joint inspections with the state in programme areas with repeated and serious errors or deficiencies, taking an enforcement action after and on top of a state action (so-called "over-filing", which is very rarely used), the withholding of federal grant funds or, as a last resort, the withdrawal of an authorised programme.

Further complicating matters with respect to national consistency of enforcement in the US is the fact that EPA Regional Offices respond quite differently to the differences among states in their enforcement practices. Some regions step more readily into cases where they consider a state's action to be inadequate, while other regions are more concerned about infringing on states' discretion in a delegated programme. In some cases, the US EPA may even lack legal authority to take actions to improve state performance.

In the framework of the Clean Water Act Action Plan (US EPA, 2009) designed to address the main consistency problems with the implementation of water-related enforcement programmes, the EPA Office of Enforcement and Compliance Assurance has set up several working groups to elaborate proposals on how to improve enforcement oversight.

In case of a dispute over a particular administrative enforcement action (generally, a drastic one like permit withdrawal or facility closure), there are few examples in decentralised systems where a higher-level authority can overrule a lower-level one. In Sweden, a municipality's decision can be appealed to the County Administrative Board (and thereafter to the relevant Environmental Court). In Japan, an operator or any directly affected party may, based on the Administrative Appeal Law, request a review by the Ministry of the Environment of an administrative sanction imposed by a local government.

More often, a dispute has to be settled in court. In Switzerland, for example, federal authorities have a right to bring suits against cantonal authorities in a cantonal court (administrative docket) or in the Federal Court. This is an important mechanism to ensure nationwide regulatory consistency but it is not frequently used (with one or two such suits per year).

Finally, in some countries there are special provisions to resolve disputes between government authorities at different administrative levels. For instance, in Japan, when national and local governments have conflicting opinions and cannot find a solution through administrative processes, it is possible to use independent dispute resolution processes. The Central and Local Government Dispute Management Council provides recommendations in the case of disputes between the national and a prefectural or a municipal government, and the Commissioner for Local Dispute Management does the same regarding the involvement of prefectural governments in municipal matters.

5. COORDINATION AND CAPACITY BUILDING

Most OECD countries with decentralised systems have set up cooperation and coordination mechanisms and even permanent institutions to streamline the relationship between levels of government. Those mechanisms can be formal or informal, depending on the political and legal tradition. Despite the constraints in human and technical resources, financial costs associated with the cooperation process and vested interests at different levels, different means of interagency collaboration are rapidly developing. This chapter provides an overview of the forms of collaborative relationships between environmental enforcement authorities, including efforts to enhance the capacity of local agencies and make their practices consistent on the national scale.

5.1 Interagency Coordination Bodies

Most OECD countries dealing with a multi-level dimension have set up cooperation and coordination mechanisms and permanent institutional structures targeting the "vertical" relationship across levels of government as well as (as the case may be) the "horizontal" one between line agencies with environmental enforcement responsibilities. These bodies' functions vary depending on their orientation and composition and may include:

- *High-level policy coordination (usually going beyond compliance assurance) between decision makers from stakeholder agencies.* For instance, Sector Conferences in Spain are multilateral cooperation bodies which focus on a particular sector of public activity and constitute the main pillar of inter-governmental coordination. They are composed of the heads of the corresponding ministry departments and all Regional Government ministers who cover the same area. Because these Sectors Conferences are voluntary collaboration bodies, their decisions usually take the form of agreements binding only for the signatories. The Environment Sector Conference has been operating on a regular basis since 1988 and meets at least twice a year. A new Water Sector Conference was established in 2009, in part to address the problems in collaboration between the eight river basin authorities (Water Confederations) operating under the General State Administration and governments of the Autonomous Communities (regions).

- *Exchange of experiences and best practices and development of common approaches and tools.* The two characteristic examples of coordination bodies with this orientation is the Dutch National Environmental Enforcement Cooperation Secretariat (see Box 5) and the Swedish Enforcement and Regulations Council (ToFR)[14]. ToFR is a body for cooperation between Swedish public authorities on regulation and enforcement matters with respect to the implementation of the country's Environmental Code. It was established by the Parliament and its members are appointed by the government. It is chaired by a representative of the Swedish EPA and includes representatives of several other national authorities (e.g. the Chemicals Agency), the Swedish Association of Local Authorities and Regions, two County Administrative Boards and one municipality. The Council's activities are mainly organised around time-limited projects with participation from various member authorities. Its secretariat regularly conducts seminars on topics of common interest for the member authorities, recently covering inspection

[14] www.tofr.info/In-English/

planning based on the environmental quality objectives, linkages between environmental management systems and compliance monitoring, enforcement methods, the quality of enforcement, etc. These seminars act as forums for discussing common viewpoints and promoting sector and level integration.

- *Facilitation of operational collaboration between EEAs on the ground.* Again, the Netherlands offers good examples of coordination bodies designed to promote consistency of routine compliance monitoring and enforcement work across various competent authorities. These include provincial "focal points" and national and provincial sector-specific "front offices" (see Box 5).

Box 5. Institutional Coordination of Environmental Compliance Assurance in the Netherlands

In total, there are about 500 competent authorities in the Netherlands with responsibilities for some aspects of environmental compliance and enforcement:

- The Inspectorate of Housing, Spatial Planning and the Environment (VROM Inspectorate) has a double mission: to provide direct supervision of waste shipment, nuclear and military installations, and a few other national priority activities; and to oversee the implementation of regulations by provincial authorities and municipalities. The Inspectorate employs about 650 staff who work mostly out of five regional offices.

- The 12 *provincial authorities* are responsible for the licensing, inspection, and enforcement with regard to the majority of large industrial installations, while smaller facilities are regulated by about 440 *municipalities*.

- The *State Water Board* (under the Ministry of Transport, Public Works and Water Management) has 10 regional offices and is responsible for enforcing water quality regulations with respect to major rivers and marine waters.

- There are 26 *regional Water Boards*, which are historically independent entities responsible for the management of smaller water bodies. They issue permits for water abstraction and wastewater discharges and conduct compliance monitoring and enforcement.

- Finally, 26 *police regional environmental teams* and six inter-regional teams conduct investigations of environmental crimes in cooperation with VROM and other competent authorities.

The provinces, legally responsible for enforcement coordination, have created *"focal points"* to coordinate enforcement actions at the provincial level.

At the national level, *the National Environmental Enforcement Cooperation Secretariat* (LOM), a small independent body established by VROM, the Association of Provincial Authorities, the Association of Netherlands Municipalities, the Association of Water Boards and several other key stakeholders, works to facilitate coordination between all Dutch authorities competent in environmental enforcement. Among others, LOM coordinated the development of a National Strategy for Enforcement of Environmental Legislation.

The inspection bodies have also set up so-called *"front offices"* – coordination units for specific industry sectors at the national and provincial levels. While individual authorities keep all their responsibilities and powers, they can, when appropriate, delegate certain tasks to other government agencies.

The national government is planning the establishment in 2012 of 25 *regional enforcement agencies* which would pool staff from national, provincial and local enforcement bodies and water boards to ensure compliance in industries with high environmental and public health risk (e.g. chemical and waste industries). However, this reform would not affect the formal regulatory powers of individual competent authorities or the regulation of smaller industries.

Source : OECD (2009), VROM Inspectorate (2010).

The Dutch case shows that in a decentralised system with a multitude of competent authorities working at each administrative level, there is a need for different coordination bodies and mechanisms that would each perform a particular cooperation function but would together "synchronise" environmental compliance assurance nationwide.

5.2 Networks and Associations

Horizontal coordination between peer competent authorities at the same administrative level of government is essential to share good practices in a quest for more effective and efficient enforcement and to better understand the challenges ahead. However, setting up horizontal cooperation arrangements can be difficult, as sub-national or local authorities in different jurisdictions do not always have the same needs, and incentives for strengthening cooperation may not be clear to them. Professional networks with a different extent of common activities seem, from the experience of many OECD countries, to be a preferred mechanism for collaboration between EEAs, particularly at the sub-national level. Networks allow sufficient flexibility to address member agencies' operational priorities without a need to compromise their institutional autonomy. They are commonly sustained by financial and in-kind contributions from their members and seek to:

- Promote the exchange of information and experiences on environmental compliance monitoring and enforcement issues;
- Raise professional standards in the interpretation and administration of environmental law through the development of guidance documents on good practices, handbooks, etc.;
- Facilitate training for environmental inspectors according to harmonised competency criteria;
- Undertake joint technical projects on specific topics of concern;
- Facilitate the development of bilateral and multilateral relationships among member EEAs on issues of mutual interest;
- Represent their members in their relationship with the national environmental authority (which may or may not be a network member) and other government institutions; and
- Channel the participation by member EEAs in international environmental compliance and enforcement networks, such as the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) and the International Network for Environmental Compliance and Enforcement (INECE).

Some networks address environmental policy implementation more generally and perform only a few of these functions. For example, Spain's Environmental Authority Network brings together national and regional environmental authorities and ministries of economy with a specific objective to monitor the application of, and compliance with, EU Directives. In Switzerland, there is a general network of heads of cantonal environmental departments as well as a separate CerclAir network of cantonal and federal officials dealing with air pollution issues, with a number of technical groups under each network (where only interested cantons are represented).

The Environmental Council of the States (ECOS) was established in 1993 in the US as a national non-profit, non-partisan association of state and territorial environmental agency leaders. Its dual function is to support the exchange of ideas, views and experiences among states (for instance, it publishes annual "Sharing Solutions" reports on state environmental innovations and regular state survey-based reports on

specific issues) and to articulate state positions to Congress, federal agencies and the public. About two-thirds of the states participate in ECOS's Compliance Committee which holds meetings twice a year as well as monthly teleconferences.

Other networks are more oriented toward joint projects that are expected to offer shared solutions to common problems and the ability to amortise development costs (e.g. for inspection manuals) across a number of jurisdictions and agencies. A good example of this is Environmental Collaboration Sweden – a partnership created in 2005 at the initiative of Sweden's County Administrative Boards (CABs), which includes all the CABs, the Swedish EPA and the National Board of Health and Welfare. It aims at ensuring a more uniform handling of regulatory issues across the country by providing CABs with guidance, information, training courses, seminars, etc. The work also supports CABs in their supervision of local authorities. Two project leaders employed by the network lead a number of project groups in different areas, comprising five-six officials from the CABs plus sometimes a representative of a central authority.

The model of national-regional collaboration has been replicated in seven out of 21 Swedish counties through Environmental Collaboration Regionally – a vehicle for sub-national-local cooperation between the CAB and the county's municipalities[15]. It functions based on issue groups and projects (mostly to produce sector-specific guidance), similarly to the national scheme.

Finally, some networks are specifically focused on environmental compliance assurance. Inspired by the EU IMPEL network, Spain's Autonomous Communities (regions) initiated in 2008 the establishment of a State Environmental Inspection Network (REDIA). Regional EEAs, with the participation of the national environment ministry, exchange best practices through projects (development of guidance documents, organisation of technical workshops) of common interest. Another example, of a network of Australian regulators that has expanded to include their peers from New Zealand, is presented in Box 6[16].

Box 6. AELERT: A Regulators Network in Australia and New Zealand

The Australasian Environmental Law Enforcement and Regulators neTwork (AELERT) is a network of environmental regulatory agencies. Its aim is to build relationships between jurisdictions to facilitate the sharing of information and improve the regulatory compliance capacity of member agencies. Along with Australia's federal, state and over 20 local agencies, it also includes national and regional agencies from New Zealand. Established in 2004, AELERT presently comprises over 75 member agencies, and further agencies have indicated they are likely to join.

While AELERT works primarily at a national and state level, it is recognised that local government agencies face the similar challenges and issues. As a result, the Steering Committee jurisdictional representatives seek to engage these agencies at the second tier to assist them to achieve their own best practice, provide access to training opportunities and provide a forum for wider discussion of common issues with other second tier agencies and AELERT at a national level. Each jurisdiction is developing its own second tier programme.

AELERT aspires to become a "brain trust" of like-minded regulators facing common issues, which member agencies can tap into for information and assistance. One of the main projects of the network has been the development of Shared Learning Resources – a common web space allowing all AELERT member agencies to share training packages, presentations, and templates to promote the professional development of their regulatory staff.

Source : www.aelert.com.au

[15] Other CABs prefer to lead the coordination work themselves rather than set up an external mechanism for it.

[16] Although Australia's federal government has very limited regulatory powers in the environmental domain and this type of a decentralised system is not the focus of this study, this example is remarkable because of its multi-tier and international dimensions.

5.3 Issue-specific Collaboration

Apart from networks, there is a variety of means for more or less formal cooperation between EEA staff at different administrative levels as well as between peers across jurisdictions, helping to achieve a common understanding of compliance assurance issues nationwide:

- *Memoranda of understanding* on specific issues, particularly where there is a need to have a clear division of inspection responsibilities between sub-national and municipal governments or to address trans-boundary concerns. This tool, for example, is widely used in the Netherlands;

- *Sharing of official documents* (such as inspection reports or compliance orders) between regional and local EEAs, mainly with respect to priority environmental problems or regulated installations. This is common practice between County Administrative Boards and municipal Environmental and Public Health Committees in Sweden;

- *Ad hoc working groups* with voluntary participation, with discussion organised increasingly via restricted access websites or e-mail groups. These are common in such countries as Spain, Sweden and Switzerland and may be coordinated by the national environmental authority or be a local initiative; and

- *Regular meetings* on focus issues between administrators, inspectors or lawyers (sometimes involving the police and representatives of other competent authorities) at the national or regional level. This traditional way of communication is still very widespread but face-to-face interactions are being gradually replaced (primarily for budgetary reasons) by video and audio conferences.

5.4 Capacity Building Mechanisms

Poor institutional capacity impedes the achievement of consistently high level of compliance assurance across the country. It is often the role of national environmental authorities to ensure that lower-level EEAs accumulate sufficient knowledge and practical experience, which is a process requiring a range of instruments and significant resources.

Formal training is an effective capacity building tool, but it can be resource intensive. The US EPA has operated the National Enforcement Training Institute (NETI) since 1991. NETI's function is to train federal, state and local lawyers, inspectors, civil and criminal investigators and technical experts in the enforcement of environmental law. Both classroom and online training is available, as well as an online resource centre (www.netionline.com). NETI offers this training free of charge and, in addition, provides and manages State Environmental Enforcement Training grants to several state associations.

Training as well as topical workshops can also be organised directly by a higher-level EEA or by private training providers. For example, Swiss cantonal authorities mostly send their staff for training conducted by SANU – the largest private organisation specialising in information and training in environmental policy implementation (which benefits from some federal funds).

There are also *interactive capacity building tools* that facilitate consultations between the central, sub-national and municipal authorities on regulatory issues. Examples of such tools include the following:

- Sweden's Enforcement and Regulations Council maintains an electronic Supervision Guidance Network – a "listserv" open to all civil servants working at the central environmental authorities

and in environmental departments of County Administrative Boards. It allows individuals to pose questions to their colleagues and to circulate answers by e-mail to all the participants.

- The Swedish EPA operates a so called "legal support service" (help desk) available by telephone for two hours every working day. This service offers advice and interpretation on legal issues. It is used not only by regional and local EEAs but by other stakeholders as well.

- InfoMil, an organisation that serves as an intermediary between the various authorities and target groups in the Netherlands, operates a help desk which provides information to competent provincial and municipal authorities on a variety of regulatory subjects, including inspection and enforcement[17].

Most national environmental authorities produce *guidance documents* on the implementation of national legislation, including compliance monitoring and enforcement, and disseminate them through their websites. The Swedish EPA's web pages contain interpretation guides to legal requirements, handbooks on inspections and on handling different kinds of frequently occurring issues and enforcement actions, factsheets on specific sectors and activities, as well as an inspection newsletter (published five times a year) on current issues.

In 2007, the Enforcement and Regulations Council (see Section 5.1), in collaboration with the Swedish EPA, conducted an evaluation of inspection guidance delivered by the central and regional authorities to County Administrative Boards and municipal EEAs. The study found that the division of responsibilities for issuing guidance was not clear enough and there was a need for more cooperation among these guiding authorities, and that the quality of inspection guidance required improvement[18]. These findings highlight that the national consistency in capacity building products is as important as in the practices they are meant to support.

[17] InfoMil was created in 1995 by the Dutch Ministry of Housing, Spatial Planning and the Environment in cooperation with the Association of Provincial Authorities, the Association of Dutch Municipalities and the Ministry of Economic Affairs (www.infomil.nl/english). In addition to operating the help desk, InfoMil organises workshops and trainings, publishes guidelines, handbooks, fact sheets, a newsletter and a quarterly magazine.

[18] SEPA, 2010 (responses to the OECD questionnaire). During the project interviews, several municipal EEAs in Sweden also noted the absence of nationally or county-level guidance on how municipalities should address environmental impacts of very small installations.

6. CONCLUSIONS AND RECOMMENDATIONS

The conducted analysis identified the following three principal issues that need to be addressed to improve national consistency of environmental enforcement in decentralised governance systems:

- *The targeting of compliance monitoring* (representing a strategy to detect non-compliance) should follow the same principles and approaches across the country. The trend of targeting inspections on facilities with a potentially higher impact on the environment or with poor compliance records is gaining ground across OECD countries, driven by the pressure to increase the efficiency of compliance assurance and reduce the administrative burden on other regulated businesses. However, to promote at least relative uniformity of inspection targeting approaches, national and sub-national environmental authorities (and, as the case may be, sub-national and local EEAs need to engage in joint priority setting exercises through some kind of a partnership mechanism. The shared priorities must nonetheless leave space for dealing with main local environmental concerns. Guidance from upper-level authorities, the development of auxiliary prioritisation software and associated training are also worthwhile to promote risk-based inspection targeting.

- *The choice of enforcement response* to similar violations should be guided by comparable policies in different jurisdictions (unless it is predetermined by the national legislation), aiming at making enforcement more proportionate to non-compliance. Sub-national and even local EEAs should be advised to have their own enforcement policies guiding the choice between taking any or no formal enforcement action, and between pursing administrative or judicial enforcement. Enforcement policies should take into account the proportionality, effectiveness and cost of enforcement actions, as well as the EEA's ability to control their execution. The complementarity between non-compliance responses of different EEAs with competencies in the same jurisdiction (e.g. federal and state, regional and municipal EEAs) should be sought through routine operational interagency coordination.

- *The severity of administrative enforcement response*, particularly with respect to the size of monetary penalties, has a very significant bearing on the economic level playing field. It is important not just to ensure the comparable size of fines across jurisdictions (which can be prescribed in the legislation or in enforcement policies), but to strive to have monetary penalties remove the offender's economic benefit from non-compliance, so as not to give violators undue economic advantage. In addition to making sanctions proportionate to offences, this would greatly increase their deterrence effect, thereby contributing to more effective compliance assurance nationwide.

These three main aspects of national consistency must be addressed through close multilateral (and sometimes bilateral) dialogue between competent authorities at different administrative levels and between peer EEAs at the same level. The vertical and horizontal dimensions of this collaboration may be part of the same or different institutional arrangements. The degree of their formalisation (from special coordination bodies to networks to issue-specific initiatives) largely depends on the country's institutional culture. They should, however, perform a range of essential functions:

- High-level policy coordination;
- Exchange of experiences and practices;
- Development of common approaches and tools; and
- Facilitation of operational collaboration between EEAs on the ground.

Particularly worth noting the expanding good practice of inter-municipal environmental agencies (as in the Netherlands, Sweden and Spain) which both addresses gaps in the human, technical and financial resources at the local level and contributes to greater coherence of enforcement activities. This approach also increases the overall efficiency of the system by preventing its excessive fragmentation.

Under its mandate to oversee the implementation of national environmental legislation, the national environmental authority should monitor the consistency of its enforcement by reviewing the performance of sub-national EEAs (in a three-tier institutional structure, sub-national authorities should do the same with respect to municipal agencies). It is difficult to recommend the extent of such performance reviews (and especially of the eventual intervention based on their results) as it will be tightly linked to the degree of constitutional autonomy of sub-national and local governments. However, it is essential that these reviews be systematic: regular and based on a well-defined, limited set of indicators that would drive (or at least constitute a common part of) data collection and management at the lower administrative levels. Such reviews should also establish a high performance standard for lower-level enforcement authorities.

The analysis has revealed the important lack of sound outcome indicators (and guidance for their interpretation) that would constitute a basis of comparison across jurisdictions. In all the studied countries, data collected by sub-national EEAs, whether reported to the national government or not, is focused exclusively on inputs (the number of inspectors and the amounts of allocated resources) or outputs (activities such as the number of inspections or enforcement actions taken). Many sub-national and local governments argue that it is not the means of achieving compliance that necessarily need to be consistent but the extent of compliance itself, i.e. the result of their activities. Measuring the level of compliance is a formidable challenge, but developing several outcome indicators as part of interagency collaboration and adding them to the scope of performance reviews is a sensible goal toward which national authorities in some of the studied countries are working already.

Benchmarking among different jurisdictions is another tool that might allow national authorities, the regulated community and the public to know whether there is equality in regulatory and compliance assurance activity. International and national informal networks often serve as a vehicle for benchmarking. However, a prerequisite for benchmarking is the establishment of adequate performance measurement and data collection and reporting mechanisms and an interagency consensus for its implementation.

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