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Working Party on Environmental Performance

Compendium of good practices in promoting, monitoring and enforcing environmental compliance

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Eugene Mazur, Environmental Performance and Information Division, eugene.mazur@oecd.org

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Chapter 1. Introduction

1.1. Role of compliance assurance in environmental governance

1. Despite adopting increasingly ambitious environmental policies, OECD member countries are generally not on track to reach some of their key objectives. One of the key reasons for this is the so-called "implementation gap", which includes insufficient compliance with environmental requirements. A global study by UN Environment (2019) stated that despite the strengthening of environmental laws and agencies worldwide over the last four decades, weak enforcement is one of the key factors exacerbating environmental threats. The lack of law enforcement is one of the greatest challenges in mitigating climate change, reducing pollution and preventing widespread species and habitat loss.

2. In response to this challenge, OECD member countries have been adjusting their approaches to strengthen compliance assurance. A few years ago, the European Commission issued an action plan on environmental compliance and governance for European Union Member States (EC, 2018a). The Communication and the staff working document on compliance assurance which supports it (EC, 2018b) take up many approaches to compliance assurance long promoted by the OECD work on this issue.

3. From the environmental economics perspective, individual entities' compliance decision is based on the balance between expected compliance costs (i.e. expenses for technological and management improvements to meet environmental requirements) and non-compliance costs (i.e. value of monetary penalties, civil liability, etc.). Low compliance may also stem from inadequate incentives provided by the regulatory framework, lack or poor design of important compliance assurance tools, and insufficient institutional capacity and resources of enforcement authorities.

4. Many factors influence compliance in a positive way. Environmentally friendly behaviour is increasingly encouraged by customers, investors, insurers and local communities. Intrinsic motivation, such as honesty or social norms, may also lead to voluntary compliance, particularly in co-operative cultures (such as Japan and Scandinavian countries) with widely shared communal values of socially responsible conduct.

5. Environmental compliance assurance seeks to reinforce the positive factors and counter the negative ones through a broad array of actions taken by governmental agencies alone or in co-operation with other stakeholders. Compliance assurance is a crucial element of the iterative, cyclical process of environmental regulation. It links legislative requirements with the assessment of policy implementation and feedback allowing adjustment of the laws and policy instruments.

6. Environmental compliance assurance also contributes to good governance in various ways:

- Reinforces credibility, fairness, and the deterrence effect of environmental regulations
- Strengthens public confidence in the policies and institutions responsible for environmental safety, conservation and more equitable access to natural resource
- Helps maintain the level playing field for businesses by ensuring that no company obtains a competitive advantage from its non-compliance
- Reduces costs for society, including administrative and compliance costs

- Creates a predictable investment climate based on the rule of law, thereby stimulating economic development and innovation and enhancing markets for environmental goods and services.

1.2. Main pillars of compliance assurance

7. Given that environmental compliance assurance involves a broad array of government and non-government actors, and is time and resource-intensive, its main challenge is to design an effective and efficient package of tools in support of policy objectives. These tools fall into three main categories:

- Compliance promotion – any activity that encourages compliance but does not involve sanctions for non-compliance. Examples of compliance promotion include information dissemination, technical assistance, and regulatory and financial incentives.
- Compliance monitoring – collecting and analysing information on compliance status. Compliance monitoring may include governmental inspections, audits or investigations, monitoring of ambient environmental quality, self-monitoring and reporting by regulated entities, and citizen monitoring.
- Enforcement – a set of actions that the government or third parties take in response to non-compliance with environmental requirements to compel the offender to return to compliance and remediate the damage resulting from the violation, as well as to impose sanctions on the offender.

8. Effective compliance assurance involves a combination of promotion, monitoring, and enforcement tools which are mutually supportive. For example, compliance promotion helps to target inspections on poorer performers (by improving the performance of regulated entities willing to comply voluntarily), compliance monitoring detects violations which are subject to enforcement, and the dissemination of information about enforcement cases is a good compliance promotion instrument.

1.3. Identifying good practices in compliance assurance

9. The OECD has long promoted compliance assurance through various approaches to support implementation of environmental objectives. The publication “Ensuring Environmental Compliance: Trends and Good Practices” (OECD, 2009) provided a comprehensive study of the design, management aspects and main elements of countries’ compliance and enforcement programmes. Environmental inspections, enforcement tools, and promotion of compliance and good practices were systematically reviewed in the third cycle of OECD Environmental Performance Reviews (2010-2021).

10. The objective of this work is to give an overview of good practices in environmental compliance assurance across OECD member countries. It builds on a large body of OECD work on this issue that provides a solid basis for sharing experiences and lessons learned across countries.

11. The compendium concentrates on the compliance assurance aspects directly related to fighting environmental crime and non-compliance more generally that have been surveyed through EPRs but have so far not been analysed in a more concerted and in-depth manner across all OECD member countries, namely compliance monitoring and enforcement tools. It also covers information-based instruments to promote compliance, leaving tools to encourage green business practices more generally outside the scope. Finally, this report addresses institutional co-operation at different administrative levels between environmental enforcement authorities, other enforcement agencies, the police and customs. Annex A summarises key good practices and lists countries whose examples were used to illustrate each of them.

12. The compendium does not analyse gaps and weaknesses in the countries’ compliance assurance systems and their causes, nor does it benchmark country-specific practices.

13. Ultimately, the compendium provides background analysis for the development of an OECD legal instrument on compliance assurance. At present, compliance assurance is not part of the OECD

environmental acquis. A Council Recommendation on this important issue would provide a reference point for OECD member countries in the area of policy implementation. Drawing on the compendium of good practices, it would identify measures that countries could take to further strengthen their environmental rule of law. This Recommendation would also serve as a criterion for assessing the willingness and ability of candidate countries for OECD accession to execute their environmental laws.

Chapter 2. Compliance promotion

14. Compliance promotion includes assistance, incentives and other activities designed to promote observance of environmental requirements. Assistance may include advice, guidance, training and other forms of outreach to help the regulated community understand and meet its obligations. Other instruments, including market mechanisms and public pressure, can also be used to encourage compliance. This chapter focuses on information-based instruments available to governments.

15. Compliance promotion is particularly effective when non-compliance is caused by a lack of knowledge or a lack of capacity to comply among the regulated community, or there is a cultural resistance to enforcement, e.g. where new regulatory requirements are introduced. This is why it is a preferred tool of compliance assurance targeting small and medium-sized enterprises (SMEs).

16. Compliance promotion can reduce compliance costs to businesses by allowing them to achieve and maintain compliance as efficiently as possible and may allow a reduction of compliance assurance costs to regulators by increasing the efficiency and effectiveness of compliance monitoring and enforcement activities. It also helps establish a dialogue between government and businesses, paving the way for activities to facilitate broader environmentally friendly business practices as a vehicle for green growth.

17. Very few countries try to measure the impact of compliance assistance programmes in terms of increased understanding of environmental requirements, improved environmental management practices, and reduced pollution. The United States Environmental Protection Agency (US EPA) has tried to track reported improvements in environmental management practices as a result of compliance assistance (Mazur, 2010). However, the real effect of compliance assistance is not measured by these indicators because most innovating compliance assistance initiatives span several years and produce a long-term impact that cannot be accounted for by annual indices.

2.1. Sectoral, multi-stakeholder approach to compliance promotion

18. Efforts to reduce the administrative burden of regulations and compliance monitoring on businesses, especially SMEs, have led to the emergence of a customer service philosophy vis-à-vis the regulated community in the environmental enforcement authorities of some OECD countries (most notably in the United Kingdom). This includes tailored approaches to specific sectors, enhanced collaboration between various regulatory bodies, and recognition and promotion of voluntary compliance and adoption of good practices.

19. The sectoral approach is crucial in promoting compliance and green practices among SMEs: small businesses respond only to messages adapted to their activity sector. Since the biggest concern of SMEs is the short-term financial profitability and not environmental compliance per se, economic benefits of improved environmental performance in terms of increased efficiency and competitiveness should be the main “selling point” of environmental outreach to SMEs.

20. The Scottish Environment Protection Agency (SEPA) develops a sector plan for its interactions with each sector it regulates. The sector plans are developed via engagement with the sectors, internal experts, relevant regulators and other key stakeholders. Sector plans focus on practical ways of delivering

environmental, social and economic outcomes. They specify existing levels of compliance, the market context for that sector and key relevant social issues. As of June 2021, SEPA had published 15 sector plans. The Environment Agency in England uses a similar sectoral approach. It systematically produces five-year strategies and annual intervention plans for a range of regulated sectors in England. The 2016-20 strategies covered 14 sectors, including food and drink, cement, chemicals, paper, pulp and textiles, oil and gas, metals, landfills, and hazardous waste (OECD, forthcoming).

21. Government bodies should work in partnership with trade associations and business support organisations to elaborate and disseminate environmental guidance. The dissemination of compliance assistance information to the regulated community may best be achieved in partnership with multiple stakeholders, which in some countries go well beyond trade associations. The US EPA has established an extensive compliance assistance network covering different states and industrial sectors. The agency uses partnerships with compliance assistance providers to prepare and deliver compliance assistance resources such as websites, compliance guides, fact sheets, and training materials.

2.2. Direct compliance assistance

22. Advice is an active form of compliance promotion that requires direct contact with businesses, including through face-to-face meetings, phone help lines or seminars and events. The most informal way of providing compliance information to businesses is direct communication between inspectors and operators, usually during inspection visits.

23. The Environment Agency (England) provides a lot of “retailer” compliance assistance through direct contacts with businesses. Inspectors offer advice to operators as part of their regular activities. In addition, the agency gives assistance to operators as part of the permit application process. The scope of this pre-application advice allowance included in the basic application charge has been reduced over the last decade and is limited to what guidance applicants must follow and what risk assessments may need to accompany the application. Additional pre-application advice is chargeable at a moderate hourly fee (OECD, forthcoming).

24. In Finland, inspectors often have discussions with operators on existing and potential compliance problems and possible solutions outside inspections, during specially arranged meetings (OECD, 2021a). In Victoria (Australia), written advice to businesses is regularly used to promote compliance. The Victoria EPA provides it when harm to the environment has not yet occurred or is minimal, or when breaches of approvals, permits or regulations have had no material impact, especially if the non-compliance can be corrected in the presence of an inspector (OECD, 2019a). In addition, most OECD member countries have set up help-desk hotlines and on-line support in relation to specific regulatory requirements.

2.3. Information dissemination

25. Regulation imposes obligations on businesses that can be (or be perceived to be) complex and unclear. Businesses can, therefore, benefit from support in understanding and complying with such regulation. This form of compliance assistance helps ensure that regulated entities are aware of their environmental responsibilities and provides them with the information they need to build their capacity to comply.

26. The traditional way to disseminate this information is to reach out to relevant segments of the regulated community. Environment and Climate Change Canada uses multiple outreach tools, including information package e-mails and mail-outs, as well as Twitter and web banner advertising (OECD, 2017a). In France, the Enviroveille “regulatory watch” fee-based subscription service, which is managed by the French Chamber of Commerce and Industry, sends regular e-mail updates and maintains a dedicated

website on relevant legislative developments and new applicable regulatory requirements (OECD, 2016). In Estonia, the Environmental Inspectorate has conducted a number of mass mailing campaigns in selected activity sectors with acute environmental issues before launching sector-wide inspections (OECD, 2017b).

27. However, the main means of information dissemination to industry is sector-specific best practice guidance which is increasingly delivered via dedicated websites. Government authorities like online guidance tools because they offer regulatory consistency of advice, time and cost savings on face-to-face advice as well as anonymity, which facilitates communication with the regulated community. Environmental guidance is delivered through environmental regulators' own websites, specialised sites funded by environmental authorities, and generic business portals which direct users to information on environmental compliance and good practices. Industry associations usually actively participate in the design of guidance documents and circulate them among their members.

28. The US EPA uses a number of web-based tools to disseminate information on good compliance practices. In particular, there are 16 sector-specific web-based Compliance Assistance Centres that consolidate and explain relevant environmental requirements and solutions. The web-based compliance assistance centres have been created through partnership between EPA and third-party, non-profit organisations to provide user-friendly "first stop shops" where businesses, local governments, and federal facilities can find comprehensive, easy-to-understand compliance information that fit their needs.

29. NetRegs – one of the first web-based environmental compliance promotion tools in Europe – was created in partnership between the UK environmental regulators in 2002. In 2011, the Environment Agency withdrew from NetRegs to integrate environmental guidance to businesses into one multi-theme hyper-portal. NetRegs was then revived as a partnership between SEPA and the Northern Ireland Environment Agency. It provides free environmental guidance on a wide variety of environmental topics for businesses in dozens of sectors throughout Scotland and Northern Ireland. The tools include online guidance, an email newsletter, e-learning courses, an environmental self-assessment tool, and mobile app that delivers checklists specific to each business sector (OECD, forthcoming).

30. The sophistication of industry guidance has increased dramatically in recent years, particularly with the development of interactive compliance assistance websites. The development of such compliance information vehicles requires significant resources, mostly for producing the content, marketing and communications. On the other hand, too much advice and guidance may restrict innovation in finding solutions that are cost-effective for the operator's specific circumstances. Guidance should be concise and clearly distinguish between legal requirements and good practices in order to avoid costly over-compliance by small businesses.

2.4. Public disclosure of compliance records

31. The fear of adverse publicity for environmental offenders makes public disclosure of violations a strong deterrent to non-compliance with environmental requirements and therefore act as a major compliance promotion tool. In addition, publicising success stories can also provide strong incentives for the regulated community, since positive publicity about a firm's compliance success can enhance its reputation.

32. While in many countries (such as France, Finland, the Netherlands and Japan) inspection reports are generally available upon request only, it is good practice to disclose them to the public. Canada's federal law requires a publicly disclosed registry of corporations convicted under certain environmental and wildlife laws. Public disclosure of enforcement information is also widely practised at the provincial level. In British Columbia, the Ministry of Environment and the Ministry of Forests, Lands and Natural Resource Operations jointly publish quarterly Environmental Enforcement Summaries. These list all cases

of enforcement actions (orders, administrative penalties and court convictions) against companies and individuals. They also maintain an Environmental Violations Database (OECD, 2017a). Iceland's Environment Agency publishes decisions regarding formal warnings and fines on its website and in a press release.

33. The US EPA national and regional offices and state environmental agencies routinely issue press releases and news stories and hold press conferences about enforcement actions and penalties assessed against violators. Enforcement and Compliance History Online (ECHO) is the public access website to data stored in EPA compliance and enforcement data systems. ECHO offers easy public access to much enforcement and compliance information, including enforcement cases filed and concluded against named violators, which also has a significant compliance promotion effect. It provides integrated compliance and enforcement information for more than one million regulated facilities nationwide (US EPA, 2021a).

34. In the UK, the Environment Agency maintains a public register of enforcement actions, searchable by offender's name, action or offence type, and date. Similarly, the Colombian Ministry of Environment and Sustainable Development is required to keep a comprehensive, publicly accessible register that includes detailed information on environmental violators and their violations (OECD/ECLAC, 2014).

Chapter 3. Compliance monitoring

35. Compliance monitoring is a backbone of regulatory programme implementation. This is how the environmental enforcement authority detects violations, making it possible to quickly correct some of them. Compliance monitoring also provides evidence to support enforcement actions and, in doing so, deters non-compliance. In addition, it supports compliance assurance strategies through better knowledge of the regulated community and contributes to regulatory performance measurement.

36. Country experience confirms that targeting of inspections on activities with a potentially higher impact on the environment or with poor compliance records allows enforcement authorities to increase the efficiency of compliance assurance and reduce the unnecessary administrative burden on the rest of the regulated community. There is evidence (EC, 2018b) that better targeted inspections result in a higher rate of non-compliance detection and, therefore, more effective and efficient compliance assurance programmes. Often operating under constraints of diminishing financial resources, enforcement authorities have to target their efforts where it counts most – on high-risk segments of the regulated community, including those where environmental crime is most likely to occur. Enforcement authorities are also becoming more efficient in reacting to complaints that call for unplanned inspections. Last but not least, they increasingly adapt their inspection approaches to regulatory priorities and the profile of the regulated community.

3.1. Risk-based inspection planning

37. Risk-based regulation seeks to focus compliance assurance on business activities that are of higher risk to human health or the environment. According to the OECD's best practice principles on regulatory enforcement, the frequency of inspections and the resources employed should be aimed at reducing the actual risk posed by infractions. All compliance monitoring activities should be informed by the analysis of risk, defined as "the combination of the likelihood of an adverse event occurring and the potential magnitude of the damage caused" (OECD, 2014a).

38. The risk-based approach to inspection planning allows environmental enforcement authorities to deliver greater environmental benefits for the same amount of effort. Another reason for risk-based targeting of inspections is the growing number and variety of statutory environmental requirements enhances the field of compliance monitoring and makes prioritisation necessary. As the regulatory framework becomes more complex, there is also increasing pressure to reduce the administrative burden on the regulated community, part of which is imposed by compliance monitoring requirements.

39. Environmental risk varies with the type of regulated activity: a large complex installation with high volumes of hazardous substances poses a greater risk than a simpler process handling relatively inert substances. Risk can also vary with location: an activity located next to a school might be viewed as a greater risk than one on an industrial estate. Compliance record is also important: an activity can be viewed as a greater risk if its operator has a history of not complying with environmental requirements. However, there are different approaches across OECD member countries to considering these factors, varying in complexity and degree of formalisation.

40. The first approach to targeting of compliance monitoring consists of defining broad (often economic sector-based) categories of installations based on qualitative risk-related criteria and setting minimum inspection frequencies for each category in a regulation or a national plan. In addition to minimum inspection frequencies, competent authorities tend to informally consider local and operator-specific risk factors to further prioritise their inspection activities.

41. In France, the average inspection frequency depends on the type of facility: "national priority facilities" are inspected at least once a year. There is also an annually updated list of high-stake (or regional priority) facilities (determined regionally based on national criteria) which are inspected once every three years, including all those subject to European legislation. All other permitted facilities should be inspected at least once every seven years (OECD, 2016). In Iceland, the frequency of inspection depends on the type and size of installation, with the largest and most complex being inspected twice a year and the low-risk ones only upon complaint (OECD, 2014b).

42. In British Columbia (Canada), the Ministry of Environment's inspection policy dictates the frequency of inspections for high-, medium- and low-risk sites. Newly regulated sectors or segments of the regulated community where non-compliance trends have been detected may be inspected more frequently (OECD, 2017a). The US EPA has several inspection targeting strategies, from those focusing on priority pollutants in a segment of the regulated community or in a geographic area to addressing high rates of non-compliance in a specific type of industry or under a specific regulatory provision. Each programme has an inspection frequency schedule that recommends more frequent inspections for larger facilities and less frequent for smaller facilities.

43. The second, more sophisticated, approach consists of formal prioritisation of regulated installations with the help of a scoring system. Formal risk-scoring has the advantage to be more transparent than less formal risk-based approaches. However, it requires greater resources and close communication with industry to ensure its buy-in. This is important as some operators may become subject to greater regulatory burdens as a result.

44. The Operational Risk Appraisal (Opra) system was for many years England's Environment Agency's key tool for risk assessment of sites, inspection planning and charge setting. Although Opra was withdrawn in 2019, the agency's internal planning tools still prioritise permits based on several criteria such as their sector, compliance scores, enforcement activity, incidents, complexity and location (OECD, forthcoming).

45. Several countries have followed the Opra example. Denmark assigns a risk score to companies based on five parameters with differing weights: use of environmental management systems (20%), previous rule compliance (30%), storage of chemicals or other hazardous substances (16.5%), emissions to air, soil or water (16.5%) and proximity to environmentally sensitive areas (17%). The potentially most environmentally harmful companies are inspected at least every three years, while the least potentially harmful are inspected at least every six years. In both cases, the frequency of inspection is increased if the company's risk score justifies it (OECD, 2019b).

46. Latvia has also developed a risk-based scoring method for planning inspections of industrial installations. Factors determining inspection frequency include the installation's level of environmental impact and location, the operator's compliance history, the permit expiration date and the timeliness of self-monitoring reports. The tool generates a score that determines whether inspections should be at minimum frequency (once every two years for higher-risk installations), increased frequency (two or more inspections per year), or annual (OECD, 2019c). Several Spanish regions also use software tools modelled after Opra to plan their inspection activities.

47. The share of proactively planned versus reactive inspections responding to incidents or complaints is a good indicator of effectiveness and efficiency of a compliance monitoring programme. The more risk-based targeted inspections prevail, the better the enforcement authority's resources are used. In Sweden,

for example, unplanned inspections account for just 20-25% of the total, which demonstrates successful risk-based targeting of compliance monitoring (OECD, 2014c).

3.2. Providing adequate response to citizens' complaints

48. Reactive inspections cannot be avoided entirely. Apart from responding to emergencies and referrals from prosecutors, they help the environmental enforcement authority make good use of public complaints. Public complaint procedures facilitate citizen participation in administrative enforcement efforts by pointing to potentially harmful activities. In some countries, citizens play an important role in detection of offences. For example, Korea's local governments heavily rely on civil environmental monitoring groups to signal visible offences (OECD, 2017c).

49. Many countries have established telephone or website hotlines, or other tools for reporting acute environmental accidents and other environmental crisis situations. Ireland has developed an information technology tool called "See it? Say it" to facilitate handling environment-related complaints by citizens. This is an application that allows easy submission of complaints related to environmental offences. Several types of offences can be reported: dumping of waste, air pollution (including backyard burning, odour and toxic fumes), noise from commercial premises and small factories, killing of fish and water pollution. Additionally, a 24-hour national telephone line has been opened for citizens to report the same types of issues (OECD, 2021b).

50. To better handle environmental complaints from the public, Latvia has introduced an interactive website, Environment SOS, where anyone can submit information on potential environmental offences. It allows tracking of follow-up to the complaint (OECD, 2019c).

51. Setting up a system that filters between complaints is also a good practice. Whereas some complaints point to possible violations, others merely show discontent with the business operator. Having an independent complaint committee or a designated staff member to handle citizen complaints would allow the enforcement authority to distinguish between complaints that are detailed and substantiated and those that are less grounded, those that point to major risks and those that indicate only minor problems and finally between repeated complaints from several sources and one-off allegations. Slovenia, for example, has established such a filtering mechanism and reacts primarily to cases in which there is a potential threat to public health or public order, to complaints concerning high-risk installations, and to indications from reputable non-governmental organisations (NGOs) (OECD, 2012).

3.3. Diversification of compliance monitoring tools

52. The diversification of compliance monitoring tools is closely linked with better targeting of compliance monitoring activities in general. On the one hand, in-depth compliance assessments or audits have been introduced, among others, in the United Kingdom, the Netherlands and Norway. They are conducted, mainly at higher-risk installations, to identify root causes of non-compliance rather than just detect it. Audits generally review the effectiveness of the operator's management system. In addition, they can be used to assess whether the permit still provides appropriate level of protection. Audits are always planned, and the operator is notified to provide information or attendance of certain personnel.

53. At the same time, some site visits are being replaced with "administrative inspections" – off-site meetings with operators to review reports, data and procedures. In Finland, such meetings serve to discuss existing and potential compliance issues (OECD, 2021a).

54. Environmental enforcement authorities increasingly resort to occasional thematic or sector-specific inspection campaigns. They are predominantly used as a tool to monitor compliance of low-risk sites or activities. Rotating sector-specific campaigns is another strategy for maximising the impact of limited

agency resources. Such campaigns can create the impression of a substantial regulatory capability and threat of enforcement, with a very limited regulatory resource commitment. Thematic inspection campaigns, usually focused on compliance with a specific regulation or on small enterprises in a given sector, are often conducted, among others, in Iceland, Israel, Latvia, Portugal, Slovenia and Sweden. However, there is a challenge of balancing attention to thematic risks with detecting site-specific issues during inspection campaigns.

55. It is advisable to link awareness campaigns and inspection campaigns: the former give businesses information to comply while the latter, after a certain period, seek to establish a level playing field through compliance monitoring and enforcement. In Belgium, the Brussels Capital Region is complementing risk-based inspections with inspection campaigns of small businesses based on a representative sample. These aim to increase deterrence by influencing through communication the uninspected part of the regulated community. This approach was tested in 2014-18 in a non-domestic waste management campaign. It resulted in a tenfold decrease of offenders' average time of return to compliance but required significant resources (OECD, 2021c).

56. Environmental enforcement authorities in several countries have outsourced some inspection functions to outside parties. In Italy, enterprises with certified ISO 14001 environmental management systems can be inspected by qualified private auditing firms (OECD, 2013a). The Irish EPA appoints third-party contractors to monitor air emissions (OECD, 2021b). In Greece and the Netherlands, certified third-party inspectors can monitor compliance at certain categories of low-risk installations.

Chapter 4. Enforcement

57. Environmental enforcement, or non-compliance response, comprises any actions taken by the competent government authority alone or in co-operation with other institutions to correct or halt behaviour that fails to comply with environmental regulatory requirements. Non-compliance responses may be designed to perform one or more functions, such as:

- Return the violator to compliance
- Correct internal company management problems which may result (or have resulted) in negative environmental impacts
- Impose a sanction to punish the violator while also deterring others
- Remove the economic benefit of non-compliance
- Correct environmental damage.

58. The common classification of non-compliance responses is based on the different branches of law authorising each measure (i.e. the type of liability): administrative, civil, and criminal. Administrative measures are applied by a government agency while civil and criminal measures are imposed, respectively, by civil and criminal courts and are sometimes referred to as judicial response. The general purpose of administrative enforcement is to restore compliance. Civil enforcement generally addresses damage caused to persons or property (civil judicial enforcement in the United States is intended to punish and deter and does not seek compensation for private parties). Criminal enforcement seeks penalties (that may include prison time for individuals) for egregious unlawful behaviour.

4.1. Administrative enforcement

59. In recent years, administrative measures have become a preferred tool to enforce environmental legislation in many countries (Section 4.4). Administrative enforcement is faster and cheaper than going through the courts. In many countries, administrative enforcement offers the government a wider range of instruments to deal with violations compared with the other enforcement responses.

4.1.1. Non-repressive responses

60. In many countries, administrative enforcement has historically been limited to non-repressive responses. Those include informal measures such as verbal warning, advice and guidance. Formal non-repressive administrative responses include written warnings or statutory notices that require a business to stop the non-compliant activity and to undertake certain corrective actions. Non-repressive responses are still by far the most used enforcement tools in OECD member countries (OECD, 2014a).

61. The administrative enforcement powers traditionally available to the Environment Agency in the UK include enforcement notices and work/improvement notices, where a violation can be prevented or needs to be remedied, and prohibition notices, where there is an imminent risk of serious environment damage. Local authorities have a similar array of administrative enforcement tools at their disposal.

62. In many countries, competent authorities would give the offender ample opportunity to correct the violation before considering any sanctions. This is particularly true in countries with a consensual compliance culture, such as Scandinavian nations and Japan. In Finland, if a violation is discovered during an inspection or is reported voluntarily, the operator is allowed to present a plan of corrective actions to return to compliance. Alternatively, corrective actions may be recommended in an inspection report with a specific deadline. The operator then has to report on the completion of the corrective actions. If the operator fails to present a compliance plan or its actions are judged inadequate by the competent authority, then the latter issues a compliance notice and the case may be referred to the police for criminal prosecution. In practice, compliance notices are used very rarely: only 36 were issued in the entire country over 2015-19. Even when a compliance notice is used, it is regarded as a sanction in itself (as it is disclosed to the public) and rarely includes penalties (OECD, 2021a).

63. In Belgium's Walloon region, when competent authorities identify environmental non-compliance, they often grant a grace period to rectify the situation without imposing any sanctions (OECD, 2021c). The Dutch Civil Code stipulates the possibility of an agreement between the administrative authority and the offender that the authority will not use administrative sanctions in exchange for a commitment of the offender to return to compliance within a certain period of time. In addition, the offender agrees not to exercise its right to appeal an administrative sanction in the event of failure to correct the violation by the deadline. The agreement may also include a deposit by the offender of a certain sum of money which is forfeited if the operator does not reverse the offence in time (OECD, 2009). This Dutch approach is different from replacing monetary penalties with an alternative enforcement project, discussed below.

4.1.2. Administrative sanctions

64. Administrative sanctions (repressive responses) can be generally divided into monetary penalties (fines), cost recovery for remedial actions, and deprivation of rights. Sanctions associated with deprivation of rights may include suspension or shut-down of polluting activities of an installation, revocation of a permit/licence, or closure of an entire installation. These sanctions can be definitive or temporary, partial or total. In OECD member countries, these sanctions are applied only for severe offences and in special circumstances, such as a high probability of extensive damage to public health or the environment. A company may also be banned from getting government grants or loans or working on government contracts (often as part of green public procurement policies).

65. Administrative monetary penalties for non-criminal offences are the most widely used administrative sanction. Administrative fines allow inspectors to exert financial punishment, coercion and deterrence without resorting to criminal enforcement. They are also flexible instruments that normally allow an adequate and proportional response to a violation. They can be applied to both individuals or legal persons. Administrative monetary penalties can be imposed per violation (in most countries) and/or per day of non-compliance (the competent authority eventually imposes a lump sum calculated on the basis of the number of days of non-compliance). For example, daily fines are used in the United States (per violation per day) and the Netherlands (for every day beyond the deadline set for the operator to correct the violation). A daily fine can be constructed as a fixed or a variable daily value (Section 4.5).

66. Administrative fines can also be conditional, i.e. explicitly attached to non-compliance with an order prescribing corrective actions, making them not only a penalty but a coercive instrument. Conditional fines are generally very effective and have a large deterrent effect. They are mostly used as an incentive but are rarely paid, as the vast majority of operators tend to return to compliance in the prescribed timeframe.

67. This approach is widely used in several OECD member countries. In France, practically all corrective action orders are accompanied by an order of deposit of a sum of money with a public accounting office as a guarantee against completion of the prescribed measures. The amount to be deposited is equal to, or slightly exceeds, the estimate of costs of the corrective action. The guarantee deposit is reimbursed, often in stages, upon verification of compliance or forfeited by the state as a kind of a fine (OECD, 2016).

A similar approach is used in Sweden, If the operator does not comply with the compliance order accompanied by a conditional fine, the enforcement authority asks a Land and Environment Court to confirm the fine (OECD, 2014c). Conditional fines are akin to suspended fines used in several countries. In Poland, if the offender commits to correct the non-compliance for which the sanction had been imposed, the fine may be temporarily suspended (OECD, 2015a). Upon the timely fulfilment of the commitment, the fine is cancelled.

68. Fines can also be imposed under so-called administrative-criminal law. A rare legal procedure used in Austria and the Slovak Republic, this kind of liability is intended to ensure faster punishment of offences that are harmful to the environment but not as dangerous as those specified in the criminal code (OECD, 2013b, 2011a). Quasi-criminal penalties are imposed by administrative bodies rather than the courts through a shorter process, and there is no burden of proof of a criminal procedure. Administrative criminal law enables regulatory authorities to order imprisonment of several weeks if the imposed fine is not paid.

69. Several OECD member countries allow reduction or waivers of monetary penalties for operators that conduct responsible action. An enforcement undertaking or a similar alternative payment for environmentally beneficial expenditure, such as remediation or technological upgrades, can be used instead of a fine (Box 4.1). These arrangements are formally agreed and monitored by the environmental enforcement authority. The operator is immune to any sanction for the related offence unless it fails to comply with the agreement.

Box 4.1. Alternative enforcement projects

Enforcement undertakings were first introduced in England and Wales in 2011 and more recently in Scotland. This is an offer, made voluntarily by the offender and formally accepted by the regulator, to take actions to restore and remediate the local environment and prevent repeated non-compliance. The agency then decides whether it is more appropriate in the circumstances for financial resources to be put towards remediation or upgrading of equipment, rather than monetary penalties. If the environmental enforcement authority accepts the offer, it becomes a legally binding agreement with the business or person who has made the offer. Enforcement undertakings can also be used to reduce the size of a variable monetary penalty. Over the ten years of implementation in England, the total monetary value increased more than tenfold.

"Enforceable undertakings" have also been implemented at the federal level and in some states in Australia. In Victoria, enterprises may choose to accept an enforceable undertaking rather than go through prosecution. Queensland has introduced enforceable undertakings as well. They can be suggested either by the environment department or voluntarily applied by a person or company in case of breaches of the environment protection act.

As part of Supplemental Environmental Projects (SEPs) in the United States, an alleged violator may voluntarily agree to undertake an environmentally beneficial project to provide tangible environmental or public health benefits to the affected community or environment, that is closely related to the violation being resolved, but goes beyond what is required under federal, state or local laws. Examples of SEPs include abating lead paint hazards in housing or making changes to the production process. The voluntary agreement to perform a SEP is one factor that is considered in determining an appropriate settlement penalty, and may be the basis for a lower final penalty.

Source: OECD, forthcoming, 2019a, 2009.

70. This type of arrangement has the advantage of doing more to ensure future compliance than a simple monetary penalty would. However, alternative enforcement project should be subject to the following conditions to prevent abuse of this procedure:

- The project cannot be something which the offender is required to do by law
- The majority of the project's environmental benefit should accrue to the general public
- The competent authority most not lower the amount it decides to accept in penalties by more than the agreed amount the offender would spend on the project
- The offender should not be allowed to use the project for its own public relations purposes.

71. In the United States, penalty relief may be granted under one of three policies: the Audit Policy, the Small Business Compliance Policy and the New Owner Audit Policy. The three policies may waive or reduce the gravity component of penalties (Section 4.5.1) whenever an operator makes a good faith compliance effort by voluntarily discovering, promptly disclosing and correcting a violation.

4.2. Criminal enforcement

72. Criminal enforcement is usually the action of last resort taken only in response to very serious cases or where administrative law has not been sufficient to ensure compliance. In the former case, wilful, knowing or negligent unlawful behaviour is the main characteristic of criminal culpability; in the latter, intentional disregard of administrative enforcement measures is regarded as a crime. Criminal offences

are generally related to serious damage to, or endangerment of, human health or the environment, but they can also be breaches of integrity of the regulatory scheme, e.g. operation without a permit or licence.

73. Criminal enforcement is typically a result of an investigation. Investigations are extraordinary enquiries conducted when an inspection or a record review suggests the potential for serious, widespread, or continuing violations. Criminal investigations can be conducted by the environmental enforcement authority's own criminal investigation unit, by a special investigation service under the authority of a public prosecutor, or by the police.

74. Criminal enforcement actions can be taken against individuals (physical persons) and legal entities (legal persons). As a good practice, a company itself and/or its officers can be prosecuted, the latter only if it can be demonstrated that the violation was committed with their consent or due to their neglect. For example, according to the Dutch National Criminal Sanctions Strategy, criminal environmental enforcement can be initiated against a legal or physical person in cases of violation of licence conditions, repeated violations, intentional violations, environmental pollution causing danger to public health, deliberate operation without an environmental licence, or obstruction of inspection by competent authorities.

75. Criminal sanctions include fines and deprivation of rights, similarly to administrative ones, but also imprisonment, which can be imposed only by criminal courts (with the rare exception of administrative-criminal liability, Section 4.1.2). Criminal sanctions represent both punishment and deterrence, as they have a major impact on the reputation of the convicted party. However, the burden of proof in criminal cases is "beyond reasonable doubt" – much heavier than with other types of enforcement. In some countries (e.g. the Slovak Republic) criminal courts can impose remedial action in addition to punishment.

76. In some countries, including those with high compliance cultures like Nordic countries and Japan, criminal environmental offences are exceptional. In other countries, like France, they are seldom applied, generally due to the lack of data to support criminal enforcement and low priority of environmental cases for prosecutors. In a third group of countries, prosecution has traditionally been the only possible response to any other than minor offences. These countries have been decriminalising certain categories of offences in the last 10-15 years (Section 4.4). Examples of those are Canada, Ireland and the United Kingdom. Finally, in several European countries (e.g. the Czech Republic) criminal liability for environmental offences was introduced only in the last decade with the transposition into national legislation of EU Directive 2008/99/EC on the Protection of the Environment through Criminal Law (OECD, 2018).

77. Criminal environmental enforcement is usually initiated by a competent authority or the police by way of a referral to a public prosecutor. For example, the Criminal Investigation Division of the US EPA investigates criminal violations of federal environmental laws, but it is the US Department of Justice that is responsible for prosecuting them. The Council of the European Union (2019) recommended to EU Member States to vest environmental inspectors with criminal investigative powers. In some OECD member countries, competent authorities have both criminal investigative and enforcement powers. In England, both the Environment Agency and local authorities have direct prosecutorial powers. Local authorities have direct prosecutorial powers under the Resource Management Act in New Zealand.

78. Prosecutorial enforcement can have drawbacks related to prosecutorial discretion. On the one hand, such discretion is necessary to avoid spending time and resources investigating relatively minor issues. In France, inspectorates must issue a statement of criminal offence in every case of non-compliance. However, the prosecutor has entire discretion in his decision to file the case in court, and is only required to pursue the case if it involves civil responsibility vis-à-vis a private party (OECD, 2016).

79. On the other hand, there may be reluctance on the part of prosecutors to bring environmental cases to criminal court, largely due to the resource-incentive efforts needed to collect evidence that would withstand judicial scrutiny. In addition, public prosecutors may assign relatively low priority to environmental offences, further limiting criminal enforcement. For example, in Sweden, less than one third

of all criminal enforcement cases referred to a prosecutor are actually pursued, which leaves a number of relatively serious offences unpunished (OECD, 2014c).

80. As with administrative enforcement, several OECD member countries offer alternatives to prosecution. The Environment Agency of England sometimes uses a formal administrative "caution" as an alternative to prosecution. This caution is a written acceptance by the violator that it has committed the offence. The agency only uses a formal caution where it considers it could bring a prosecution and the offender consents to be cautioned. The Environment Agency keeps a record of the formal caution and would produce it in court if the offender is later prosecuted for a different offence. If the offender does not accept the formal caution, the agency then prosecutes for the original offence (OECD, forthcoming).

81. In Canada, Environmental Protection Alternative Measures (EPAMs) offer an alternative to prosecution for a violation of the Canadian Environmental Protection Act. An agreement, negotiated with the accused by the Department of Justice in consultation with Environment and Climate Change Canada, specifies measures the violator must take to restore compliance. These measures could include clean-up of environmental damage or pollution prevention and control. Once conditions of the EPAM agreement are met, the charges are dropped (OECD, 2017a).

82. Some countries allow offenders to pay administrative fines to avoid criminal prosecution. This increases the efficiency of enforcement by allowing the administrative penalty to proceed without waiting for the prosecutor's office to decline to pursue a criminal case. In Israel, the majority of criminal procedures end with a plea bargaining agreement and payment of a "fine or trial" penalty. In the Netherlands, the public prosecutor may send a warning letter to the offender before deciding to make a criminal indictment, and can propose a settlement to the offender in exchange for the payment of a significant fine.

4.3. Civil judicial enforcement

83. The traditional civil liability is aimed at compensation of a private party for the damages or injuries caused to persons or property. Civil suits brought by private parties are an important enforcement tool present in a vast majority of OECD member countries. In most countries, governments use civil law solely to recover costs of environmental damage remediation or to obtain a civil court order (injunction) for the offender to undertake corrective action.

84. The United States 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. Civil judicial enforcement cases can be brought to a federal court by the US Department of Justice on behalf of the US EPA or to state courts by State Attorneys General. These actions are brought on behalf of the interests of the United States as a whole; they do not seek compensation for specific private parties (US EPA, 2021b).

85. Indeed, civil judicial enforcement allows a less onerous burden of proof than criminal prosecution (the preponderance of evidence versus beyond reasonable doubt). Civil enforcement also usually causes less reputational damage for the operator. In the American legal tradition, civil enforcement is an attractive alternative to both administrative and criminal non-compliance response.

86. Civil judicial enforcement actions usually result in injunctive relief (measures to be undertaken by the violator with its own means) and penalties (fines). In most instances, there is little or no difference between the maximum potential size of daily administrative and civil judicial penalties stipulated under the environmental statutes. However, the total penalty value per administrative enforcement case is limited under some statutes (e.g. the Clean Water Act), meaning that cases under these statutes that involve potentially large penalties have to be pursued through civil judicial actions.

87. Civil judicial settlements can be reached between the environmental enforcement authority and the offender. They are brought before a judge for validation by a consent decree or a settlement agreement. Under a consent decree there may be conditional penalties that are imposed if the operator fails to comply with prescribed measures. A final order is a legal document that includes a statement of the violation, assessment of a civil penalty and an agreed plan and timeline to return to compliance.

4.4. Choice of non-compliance response

88. Despite the different enforcement traditions across OECD member countries, non-compliance response everywhere includes administrative and criminal enforcement, complemented by civil measures. All these measures aim at achieving an optimum mix of deterrence, persuasion and coercion. Enforcement may escalate from an informal warning and directions for corrective actions to issuing administrative notices and penalties, to prosecution with increasingly serious consequences. More punitive actions may be warranted without first applying softer tools if offences are intentional, sufficiently serious or repetitive.

89. Governments have been paying increased attention to proportionality of enforcement actions in an effort to reduce burdens on the regulated community and optimise the use of public resources. Proportionality can be understood not only as taking actions commensurate to the seriousness of the violation, but also as allocation of resources proportionally to the level of risk (OECD, 2014a). Administrative proceedings are generally less taxing on enforcement resources in terms of time, money and personnel. In addition, enforcement authorities have much more control over administrative proceedings than over criminal ones. Businesses also prefer having an enforcement authority as the counterpart, as they can issue clear guidance and proper attention to specific circumstances, as opposed to the uncertainty that results from having to wait for a court decision.

90. These considerations almost always make administrative enforcement the authority's first choice response. Moreover, several countries have been shifting the emphasis from prosecution to administrative enforcement. The United Kingdom represents the most pronounced example of this approach. The Regulatory Enforcement and Sanctions Act of 2008 gave regulatory agencies a right to impose monetary penalties and certain discretion to determine their size. The objective was to allow for decriminalisation of less serious violations and create a new and fairer balance with criminal prosecution and improve the effectiveness of enforcement. Criminal law is reserved for most serious offences.

91. It is a good practice to ensure a clear distinction between the administrative and criminal penalty systems in the environmental field, by adopting and making available to all relevant actors specific and uniform criteria for such differentiation. This enables consistency of non-compliance responses across jurisdictions and rapid and predictable enforcement. A growing number of countries adopt laws or policies that delineate administrative and criminal enforcement while treating them as one enforcement system.

92. For example, the US EPA's enforcement response policies developed for each relevant statute describe types of violations and provide recommendations for appropriate follow-up responses. In some regulatory domains they differentiate between significant non-compliance and other violations. Significant non-compliers includes violations that have caused actual or potential harm to human health and/or the environment, are chronic or repeated, or deviate substantially from the terms of a permit or another regulatory requirement. Significant non-compliance typically warrants an administrative or judicial action that results in an enforceable agreement or order and imposes sanctions (US EPA, 2021b).

93. The National Environmental Enforcement Strategy in the Netherlands assists authorities in implementing their duty to enforce. The strategy has a clearly structured approach and outlines the steps to be taken by enforcement authorities. These include determining the type of violation of environmental law and assessing whether administrative or criminal law should be applied. In New Zealand, all regional councils and about half of territorial authorities have written policies on appropriate enforcement decision

making. Enforcement actions depend on factors such as the seriousness of the breach, the attitude and past compliance record of the offender, and whether the violation was deliberate (OECD, 2017d).

94. The Ministry of Environment in British Columbia, Canada uses a risk-based tool for assessing the factors that can influence the selection of enforcement measures – the Non-Compliance Decision Matrix. The matrix is intended to be a guidance tool used by compliance officers at their discretion when considering the context and specifics of individual cases of non-compliance. On one axis, the matrix ranks the nature of non-compliance depending on the actual or potential harm from the violation. On the other, it measures the likelihood of achieving compliance. Based on these factors, the enforcement officer would choose from a menu of enforcement tools (OECD, 2017a).

95. In France, non-compliance response is commensurate to the operator's compliance record. For example, where a generally compliant operator may get compliance prescriptions taking into account the operator's financial abilities and have its permit conditions modified, an operator with a history of minor violations may face administrative sanctions, and a recalcitrant violator may be temporarily shut down and face criminal charges (OECD, 2016).

96. In most OECD member countries, administrative and criminal enforcement instruments are mutually exclusive. There are exceptions: in Turkey, Norway and Portugal, criminal sanctions may be imposed without prejudice to administrative ones (OECD, 2019d, 2011a, 2011b). Where administrative and criminal fines cannot be imposed for the same offence, there is a decision point where the case goes forward on the criminal or administrative track for punitive sanctioning. However, this system may a create an enforcement gap when prosecutors decide not to pursue cases in court and administrative penalties are no longer possible (Section 4.2).

97. This issue can be addressed through information transmission and communication between the administrative and criminal sanctioning tracks. It is a good practice for public prosecutors to advise environmental enforcement authorities of their decision to pursue a criminal case or not. In Belgium, prosecutors have a legal duty to decide if the case remains in the criminal sanctioning track or goes back to the administrative fining authority. Competent authorities can impose an "alternative" administrative fine if the public prosecutor has not opened a criminal case within a certain period (usually several months) after receiving the statement of violation (OECD, 2021c).

4.5. Achieving deterrence through monetary penalties

98. The first goal of a penalty should be to deter people from violating the law. More specifically, a penalty should achieve specific deterrence (it should persuade the violator to comply) and general deterrence (it should dissuade others from violating the law). The perceived level of penalties is one of the factors that determine firms' compliance behaviour: both potential violators and the general public must be convinced that the penalty places the violator in a worse position than those who have complied in a timely fashion.

99. Fines are the most widely used administrative sanction because they are likely to allow an adequate and proportional response to a violation. Administrative fines can be fixed or variable, imposed per violation or per day of non-compliance. They can be applied to legal persons (businesses) as well as to individuals, although the rates in the latter case are typically much lower.

100. Fixed monetary penalties are usually applied with respect to low-level, minor or high-volume instances of non-compliance. They are relatively low and are imposed directly by the competent authority via a penalty notice. Variable fines are most common due to their flexibility. The size of administrative, criminal or civil fines is determined, respectively, by the enforcement authority, a criminal court or (in the United States) a civil court based on a number of factors.

4.5.1. Determination of monetary penalties

101. In some systems, the legislation lists a range of elements to be taken into account by an agency or a court when determining a monetary penalty. In other cases, the government has developed detailed guidelines for application of penalties. In most countries, maximum levels of fines are set in the law. Even daily fines are commonly capped by a maximum amount per violation.

102. There are often differences in enforcement approaches between the country's competent authorities. They may be due to economic and political influences and variations in resources available. To ensure consistency of sanctions, particularly in decentralised governance systems, penalties for similar offences should be calculated using the same approach, methods and factors. In an effort to minimise differences across jurisdictions in the size of the penalty assessed, the US EPA has established penalty policies that specify the dollar amount or specific ranges assigned to classes of violation and has several enforcement economic models that calculate penalties.

103. In England, the amount of a variable monetary penalty may not exceed the maximum amount of the fine that can be imposed by a criminal court or in any event GBP 250 000 per offence. UK legislation sets a maximum level of criminal fines in lower, magistrates' court while fines in a higher Crown Court are unlimited (OECD, forthcoming). In the United States, each major federal environmental statute provides for administrative and judicial penalties per day of violation. Penalty limits are regularly adjusted for inflation. There are also limits on a total value of penalty per administrative enforcement case. The size of administrative and civil judicial penalties is usually lower under state statutes than under federal ones (OECD, 2021b). Several countries (e.g. Austria, Portugal and Sweden) set both minimum and maximum administrative fines for different environmental offences. In Colombia, a 2010 government resolution lays out a methodology for calculating administrative fines to reduce the discretion of local enforcement officials (OECD/ECLAC, 2014).

Benefit component

104. Allowing a violator to benefit from non-compliance punishes those who have complied by placing them at a competitive disadvantage, which creates a disincentive for compliance. Hence, the penalty should include an amount to ensure that the violator is economically worse off than if it had obeyed to the law. This amount is referred to in the United States as the benefit component of the penalty. The methodology for calculating the benefit component was introduced by the US EPA in 1984 and updated in 2005 (Box 4.2). The existence of a well-defined and substantiated methodology strengthens the enforcement agency's position in case of eventual appeal of the penalty. Some US states' penalty policies also provide for the recovery of economic benefits in accordance with US EPA guidelines.

Box 4.2. Recovering the economic benefit of offences in US enforcement practices

The economic benefit assessment is fundamental in the calculation of administrative and civil judicial penalties in the United States. It is US EPA policy generally not to settle for civil penalties less than the value of economic benefit of non-compliance. The US EPA may settle for a smaller penalty only in extremely rare instances where the violator's ability to pay the penalty is so limited that its payment would result in plant closing or bankruptcy, the benefit component involves an insignificant amount, compelling public concerns, or there is a substantial risk that the US EPA may not be able to obtain this high a penalty through litigation.

The economic factor is also sometimes used in criminal enforcement. Under the Alternative Fines Act, US enforcement agencies have the option seeking, instead of statutory maximums provided by the environmental statutes and the generic criminal laws, fines of up to twice the profits realised by a company as a result of non-compliance and/or twice the harm caused to injured parties by the violation.

The US EPA has several methods to calculate benefits of non-compliance for the assessment of civil penalties, including benefits from delayed and avoided costs of compliance and benefits from illegal competitive advantage (e.g. selling banned products).

The US EPA developed a computer model called BEN, introduced in 1984 and still being applied, to calculate economic benefits that result from cost savings during the time when an entity is not in compliance. It can calculate savings from deferred capital investments in pollution control equipment, deferred one-time expenditures (such as establishing self-monitoring systems), and reduced operation and maintenance costs of environmental equipment. The BEN model relies on a set of standard values, such as tax rates, inflation rate, discount rate, the cost of capital, and equipment life, some of which the US EPA updates annually.

Source: US EPA (2021b).

105. In England, according to the Environment Agency's 2019 Enforcement and Sanctions Policy and the 2018 calculation methodology for variable monetary penalties, the penalty can include an amount to cover any obvious financial benefit unlawfully gained by the offender as long as the total penalty does not exceed the statutory maximum (OECD, forthcoming). In Australia, the states of New South Wales and Victoria have developed a method for calculating and recovering economic benefits arising from the breach of an act. This tool is now available to other Australian jurisdictions (OECD, 2019a).

106. In some countries, the recovery of economic benefits is only part of criminal enforcement. In Switzerland, the penal code enables courts to confiscate the profit gained by infringing the law, e.g. money saved by not taking pollution abatement and control measures (OECD, 2017e). In Israel, the 2008 Polluter Pays Law stipulates that the polluter's benefits from non-compliance are to be calculated in determining the size of fines in criminal enforcement cases. The Israeli Ministry of Environmental Protection has developed a methodology for calculating a polluter's financial benefits from non-compliance and recovering these benefits as part of a fine (OECD, 2011d). However, in most OECD member countries fines do not reflect the economic benefit the offender received from non-compliance behaviour, which means that rates are too low to ensure a real deterrent impact.

Gravity component

107. A criminal, civil or administrative fine should not only remove the violator's economic benefit from non-compliance, but also include an amount that reflects the seriousness of the violation, usually referred to as the gravity component. To ensure that the gravity of the offence is taken into account, many

environmental enforcement authorities have developed guidance for evaluating the seriousness of violations. The Environment Agency in England provides such guidance in its Enforcement and Sanctions Policy. The Environment Agency has also issued a sentencing guideline for prosecution, which describes how the gravity criteria must be taken into account.

108. The US EPA's Policy on Civil Penalties states that the main gravity factors to be considered are actual or possible harm (amount of toxicity of the pollutant, sensitivity of the environment, and duration of violation) and the importance of the violation to the regulatory regime, without regard to environmental harm. However, estimating environmental harm is difficult: different measurement techniques can produce different results (US EPA, 2021b).

109. Many countries' systems for calculating penalties allow adjustments to reflect legitimate operator-specific differences between similar violations. These adjustment factors should apply only to the gravity component and not to the economic benefit component of the fine. Such adjustments can be related to:

- Degree of wilfulness and/or negligence of the offender (predictability of events constituting the violation, the offender's reasonable precautions against these events)
- History of non-compliance (similarity of the violation to a prior violation, time lapse since the prior violation)
- Degree of co-operation with the enforcement authority (prompt reporting and correction of non-compliance).

110. The offender's ability to pay may also affect the size of the penalty. Operators raise the issue of inability to pay in most enforcement actions regardless of whether there is any hard evidence supporting those claims. This is why in the United States the burden of proof of inability to pay is on the non-compliant entity. US enforcement professionals developed in the 1980s the ABEL model to check the validity of businesses' inability to pay claims. It evaluates a company's ability to afford not only penalties, but also compliance and clean-up costs (US EPA, 2021b). The US EPA has also developed INDIPAY, which analyses an individual's ability to pay, and MUNIPAY, which analyses a municipality or regional utility's ability to pay.

4.5.2. Collection of monetary penalties

111. For any monetary penalty to be effective, businesses and individuals must know that when a fine is imposed, it will be enforced, and the competent authority will pursue the collection of the fine. The fines collection system should ensure that fines imposed are paid voluntarily or after first warning (the rest has to be collected coercively). This can be ensured through collaboration between the environmental enforcement authority and the tax collection service to facilitate monitoring of penalty payment. Payment enforcement options include:

- Enforcement by fiscal authorities which may attach the offender's cash assets to the payment of the fine
- Enforcement of the payment as a civil debt through a court which may attach not only the offender's cash assets but also property
- Transferring collection efforts to private specialised companies
- Administrative measures such as permit suspension until the fine is paid.

112. In Flanders (Belgium), if the offender does not pay the fine after receiving a formal notice, the file is transferred to the tax administration to recover the amount (OECD, 2021c). The Ministry of Finance collection service helps enforce environmental fines in Greece (OECD, 2020). In Slovenia, in case of non-payment of an administrative fine, collection is transferred to the Customs Administration (OECD, 2012). In Israel, cases of unpaid fines are transferred to collection companies chosen through a tendering process (OECD, 2011d). Many countries impose a daily interest on the full amount of the fine until it is paid

completely. The interest rate should be sufficient to recapture any gain obtained by the offender in delaying the payment.

Chapter 5. Institutional aspects of compliance assurance

113. OECD member countries represent a wide variety of institutional models supporting environmental compliance assurance programmes. The particularity of each has its historic, political and cultural reasons. Regarding environmental enforcement authorities as the core of compliance assurance systems, this chapter identifies good practices in addressing the challenges of multi-level governance, engagement with other stakeholders having compliance-related competencies, institutional capacity building, and performance measurement.

5.1. Vertical division of responsibilities and the balance of powers

114. A basic institutional issue for compliance assurance is to what extent to centralise responsibilities for enforcement at the national level or decentralise them to the subnational and local levels. The degree of decentralisation is often largely determined by existing institutional structures and traditions, which in turn are based on constitutional arrangements.

115. There are advantages and disadvantages to both centralisation and decentralisation. A national presence in compliance assurance aims to ensure that at least minimum environmental standards and requirements are met; that the system is consistent and fair throughout the country; and that national resources are available to support compliance assurance efforts. Involvement of subnational authorities is important because they are closest to the actual environmental problems and are well-placed to efficiently identify and correct them. Great geographic dispersion of regulated facilities provides another strong argument in favour of decentralisation. At the same time, where local governments are responsible for environmental regulation and implementation, there is a risk of political interference in favour of local economic development at the expense of environmental requirements and their enforcement.

5.1.1. Decentralisation models

116. The following models of vertical organisation can be observed across OECD member countries:

- ***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 subnational 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 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 subnational 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[1]. 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.

117. Decentralisation may mean delegation of responsibilities for the implementation of national legislation and/or compliance and enforcement with respect to subnational and local regulations. In the United States, for example, states enforce both federal and state laws and conduct over 80% of all enforcement actions. Many of the US federal environmental statutes establish federal-state regulatory programmes in which states are given the opportunity to enforce laws if they meet minimum federal criteria. In the Netherlands, on the other hand, the twelve provincial governments and over 400 municipalities enforce almost exclusively national laws, but the areas of jurisdiction are clearly defined. Furthermore, decentralisation of compliance assurance functions under national laws may be based on the implementation of national policies and guidelines. Alternatively, subnational and local authorities may have the freedom to develop their own. Examples of the latter include the Netherlands, Japan, and Finland (Mazur, 2011).

118. 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 subnational 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).

119. The role of municipalities deserves special mention. Local governments have significant permitting, compliance monitoring, and enforcement responsibilities under national laws in the United Kingdom, the Netherlands, Finland and Japan (only large ones). In the United States, local (county or municipal) governments can enforce local ordinances through civil action in state courts.

5.1.2. Vertical collaboration

120. The principal tools of collaboration between environmental enforcement authorities at different administrative levels include:

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

- Defining compliance monitoring and enforcement priorities and tools 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
- Guidance and ad hoc advice to subnational and local authorities (Section 5.4).

Co-ordination

121. Multi-level governance partnerships may involve setting up interagency co-ordinating bodies. In Slovenia, the challenges of interagency collaboration in compliance monitoring have been addressed through the Inspection Council, which is a permanent body for co-ordination of various inspection services established under the provisions of the Inspection Act. The Inspection Council addresses common professional and organisational issues associated with the operation of particular inspection services. It determines and monitors indicators of the efficiency and quality of the inspection services' work, and provides a common information system which allows all the inspection services to exchange data (OECD, 2012).

122. Since 1995, the US EPA and states have been implementing the National Environmental Performance Partnership System (NEPPS). The NEPPS is a performance-based system of environmental protection designed to improve the efficiency and effectiveness of EPA partnerships with states, territories, and tribes. By focusing resources on the most pressing environmental problems and taking advantage of the unique capacities of each partner, performance partnerships can help achieve the greatest environmental and human health protection.

123. US EPA regional offices 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 or a Performance Partnership Grant. The EPA works with the Environmental Council of the States (ECOS) and other associations to improve federal and state compliance assurance efforts by aligning state and EPA planning processes and integrating state strategic thinking into national planning (Mazur, 2011).

124. Canada's federal environmental authorities also enter into various types of agreements (substitution and equivalency agreements, memoranda of understanding, administrative agreements and collaboration agreements) with their provincial and territorial counterparts. These agreements promote co-ordinated environmental management and can cover any matter related to the administration of the Canadian Environmental Protection Act. They enable to focus priorities for future actions in a co-ordinated effort and to ensure that provinces and territories enforce the statute in a consistent manner. They usually cover inspection, enforcement, monitoring and reporting (OECD, 2017a).

125. The Swedish Enforcement and Regulations Council is a forum for co-operation between Swedish public authorities on regulation and enforcement matters with respect to the implementation of the country's Environmental Code. 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 (OECD, 2014c).

126. Competent authorities at different levels of government may also form *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 co-ordinated by the national environmental authority or be a local initiative (Mazur, 2011).

Oversight

127. National authorities should ensure that subnational authorities enforce environmental rules in a comparable manner while respecting local autonomy. Oversight of operations of agencies at the lower administrative level is particularly essential in decentralised systems. In most OECD member countries, performance reviews of lower-level environmental enforcement authorities are the main instrument for the higher-level competent authority to oversee the implementation of common environmental legislation. Such reviews provide consistent and predictable baseline oversight across local jurisdictions, which enables actions against weak enforcement due to inappropriate local influences. They also facilitate better communication and more effective work sharing among authorities at different administrative levels.

128. The Irish Environmental Protection Agency has designed a Performance Framework to oversee and support local authorities in their environmental enforcement duties. The performance of local authorities is also evaluated against 26 indicators based on their annual reporting of enforcement activities. The framework can be used as a self-improvement tool by local authorities (OECD, 2021b).

129. The US EPA's Enforcement and Compliance Assurance State Review Framework was created jointly by the EPA and the states in 2004 as a tool to evaluate state performance under core compliance and enforcement programmes in a nationally consistent manner. The review is conducted at least every five years. The scope of the review includes five elements that cover compliance monitoring, civil enforcement and data management. The data metrics are primarily organised around the following elements of state enforcement programmes: data quality, inspections performed and associated coverage of facilities, violations discovered and reported, enforcement actions taken, penalties calculated and collected. Upon completion of the review, the state's performance on each of the five elements is rated as meets or exceeds expectations; area for attention; area for improvement that can be handled by the state; or having problems that the EPA requires the state to address.

130. Norway's Environment Agency guides, supervises, monitors and co-ordinates county governors' inspection work and organises joint inspections. In Sweden, given the institutional autonomy of counties and local authorities, the upper-level authority's oversight of their performance in environmental policy and law implementation is a challenging task. So far, such oversight has been limited to as hoc performance reviews that usually focus on specific issues and rely on questionnaires and interviews (OECD, 2014c).

5.2. Horizontal division of responsibilities and collaboration

131. In addition to environmental agencies, other executive agencies may have authority in areas that affect or will be affected by environmental policy implementation. These include:

- Health-related agencies responsible for food safety, occupational health and safety, consumer products, pesticide use, etc.
- Natural resource management agencies responsible for water, energy, minerals, forests, etc.
- Land-use planning agencies, agencies that regulate agriculture, industry and commerce
- Criminal investigation and law enforcement agencies
- Customs.

132. There are also other institutional counterparts of environmental enforcement authorities:

- Courts are key to civil judicial and criminal enforcement actions and sometimes to enforcing administrative orders.
- Industry or trade associations are important players in compliance promotion. They serve as valuable channels for disseminating information on requirements and compliance methods.

- Citizens' environmental organisations and public interest groups play a major role in shaping and carrying out enforcement activities. These groups may collect and publicise data on environmental quality and compliance levels to influence enforcement priorities and, if the law allows, file citizen suits against the environmental agency for not doing its job.

5.2.1. Activity co-ordination and data sharing in compliance monitoring

133. OECD member countries increasingly strive to create efficiencies through joint compliance monitoring and enforcement activities. Such interagency efforts can take the form of protocols, joint alert systems, peer reviews, collaboration platforms for policy dialogue or internal panels that scrutinise enforcement decisions across authorities. In addition, competent authorities operating in the same jurisdiction may co-ordinate enforcement priorities through bilateral or multilateral co-operation agreements.

134. In British Columbia (Canada), the Ministry of Environment co-ordinates its inspections with the Ministry of Energy and Mines, Ministry of Forests, Lands and Natural Resource Operations, Department of Fisheries and Oceans, provincial work safety and health authorities, federal Environment and Climate Change Canada and local governments (OECD, 2017a). The Swiss National Environmental Security Task Force brings together representatives of environmental enforcement authorities, police, customs officials and the judiciary at the federal and cantonal levels (OECD, 2017e).

135. One of the key challenges of effective, evidence-based compliance assurance lies in generating accurate data on how the regulatory requirements are complied with. As a substantial amount of the data used to build a compliance information system is common across agencies, it makes sense for several regulatory enforcement authorities to rely on a common database. One option is to set up a national inspection database of regulated entities. Information technology is increasingly used in inspection planning and reporting, as modern technologies allow to integrate many key processes of regulatory enforcement agencies into one system.

136. In Finland, inspection reports are maintained in the compliance monitoring information system (YLVA) which also contains electronic self-reporting submissions by operators, as well as data on materials use, production and pollution releases of individual installations. Through an YLVA-linked case management system, inspection reports are made available following site inspections to inspectors across the country. Centres for Economic Development, Transport and the Environment (regional agencies of the central government with enforcement responsibilities) are thus able to review company performance across Finland. Municipalities have access to this system and must upload information about permitted and registered installations under their jurisdiction as well as their respective compliance monitoring records. Local authorities can also, to a limited extent, use YLVA in their own compliance monitoring activities (OECD, 2021a).

137. Chile has a National Environmental Surveillance Information System, which includes permits as well as information on all enforcement cases and respective penalties imposed (OECD/ECLAC, 2016). Denmark has gone a step further: in 2016, it introduced a central database collecting data from all inspections (OECD, 2019b).

5.2.2. Collaboration in criminal enforcement

138. Co-operation between environmental enforcement authorities and the police and customs is clearly essential in detection and investigation of criminal offences. Whether the case leads to prosecution or not, the police and the inspectorate should co-operate to obtain an outcome leading both to desirable environmental results and deterrence and punishment of criminals. In France, the Central Office for Co-ordinating Environmental and Public Health Crime (OCLAESP), a national office located within the Gendarmerie, co-ordinates the fight against environmental crime across enforcement agencies, including

customs and the National Hunting and Wildlife Agency. OCLAESP officers assist investigators and officials of other interested administrations, analyse breaches and profile offenders.

139. Tackling wildlife and waste-related crimes is especially challenging. The UK Partnership for Action Against Wildlife Crime is a collaboration of organisations involved in wildlife law enforcement that includes statutory wildlife conservation agencies, the police, customs and several NGOs. In the Netherlands, there is an established co-operation agreement between relevant organisations to detect criminal offences in waste shipments. The National Police Force, the Human Environment and Transport Inspectorate (national environmental enforcement authority), the Regional Police Force, customs and provincial authorities conduct joint inspections to avoid duplication of efforts and improved understanding of the issues by staff involved. Finland has a national and several regional working groups to co-ordinate preventative work against environmental crime between inspectors, the police and customs.

140. Co-operation between environmental enforcement authorities and public prosecutors is a pivotal issue in many of OECD member countries. In countries in which criminal offences are enforced by way of a referral to a public prosecutor (e.g. France, Luxembourg, Greece), environmental authorities have little control over the prosecutor's decision on whether or not to pursue a case and bring it to a criminal court, which can depend on factors such as the firmness of evidence and the likelihood of the case's success. Many agencies consider it important to establish close contacts with prosecutors to make sure enforcement is actually pursued and to gain information on the application of criminal sanctions.

141. In general, the co-operation takes place through information sharing and follow-up from the prosecutor's office to the environmental enforcement authority (as in Belgium, Section 4.4). However, in some countries, the prosecutor has the power to supervise the environmental authority's work. The involvement of prosecutors makes environmental enforcement more effective by serving as a mechanism of accountability for environment agencies (ENPE, 2020).

5.2.3. Specialised police, prosecutors and courts

142. In many countries, criminal enforcement is limited by capacity and procedural constraints of the police, customs, prosecutors and courts. This is particularly the case in countries where environmental enforcement authorities do not have investigative and prosecutorial powers. Administrative and general court judges generally lack expertise to consider the merits of environmental cases. This can lead to large discrepancies between their environmental rulings.

143. It is a good practice to ensure that police officers, prosecutors and judges in charge of environmental cases receive proper training and have appropriate expertise for dealing with such complex forms of crime (Section 5.3). However, such training has limits: in the absence of structural environmental specialisation, trained police officers, prosecutors and judges move to other positions with other caseloads, so the training effort has to continuously restart.

144. To address this issue, several countries have established specialised units to investigate and prosecute environmental crimes. In Italy, several types of crimes are investigated by the Carabinieri Corps for Environmental Protection (CCTA). The core objective of this unit is to fight illegal waste trafficking. The CCTA co-operates with the National Forestry Corps and a number of authorities responsible for public security, such as the national or local police and customs and financial police (Guardia di Finanza) (OECD, 2013a). Colombia has Environmental and Nature Conservation Police under the Ministry of Defence (OECD/ECLAC, 2014).

145. Spain has specialised environmental police and prosecutors. The Nature Protection Service (SEPRONA) was created in 1988 as part of the Civil Guard. Its core objectives are to monitor compliance and enforce the national provisions related to nature conservation, including illegal trade of protected species, illegal releases of pollution to waterways and soil, illegal logging and animal welfare (OECD, 2015b). The Spanish Environmental Prosecution Office (Fiscalia de medio ambiente) prosecuting national

environmental crime cases and co-ordinates a network of more than 170 specialised public prosecutors across the country. Each autonomous community (region) also has its own environmental public prosecutor (EC, 2018c).

146. In Norway, environmental crimes are handled by the National Authority for Investigation and Prosecution of Economic and Environmental Crime (Økokrim). It investigates and prosecutes a small subset of high-profile cases of significant impact and/or high deterrent effect, or cases which are complicated and may help develop a particular type of case law. It is both a police unit and a prosecuting authority with specialised multi-disciplinary teams. Members of the environmental team have police training as well as background in natural sciences, legal, economic and financial matters (OECD, 2019e).

147. There is a similar trend towards environmental specialisation of the courts, mostly driven by the dissatisfaction with the slow and poorly informed judicial process in administrative or general courts. Such specialisation can exist at a chamber level, within courts. In this option, all environment-related cases come to a separate docket. The other option is a separate environmental court or tribunal. In 2016, there were about 1 200 environmental courts and tribunals at the national or subnational level in 44 countries (Pring and Pring, 2016). Courts are part of the judicial branch, while tribunals are part of the executive branch (Box 5.1).

Box 5.1. Environmental courts and tribunals in selected countries

The Environment Court in ***New Zealand*** is a national court with permanent locations in Wellington, Auckland and Christchurch. Environment judges from the three main centres go on circuit to other locations as needed. Most of the court's workload is generated by appeals brought against decisions of local authorities involving regional and district plans, as well as resource consents. The Environment Court is staffed with 9 law-trained environment judges and 15 environment commissioners trained in a variety of scientific-technical, business and agricultural fields as well as mediation. The authorising Resource Management Act (1991) allows the court to regulate its proceedings as it thinks fit, so it is not bound by general court rules of procedure or evidence.

The Land and Environment Court in ***New South Wales, Australia*** has first-instance jurisdiction over merit review, judicial review, civil and criminal cases related to environmental matters, land planning, and mining. It also hears criminal appeals against convictions and sentences for environmental offences by local courts. It is part of the state's judicial system: its decisions can be reviewed by the civil or criminal appeals courts and the state Supreme Court. However, it maintains a high degree of independence. In ***South Australia***, the Environment, Resources and Development Court is a specialist court dealing with disputes and enforcement of laws related to land management and natural resources.

Sweden has five regional Land and Environment Courts and one Environmental Court of Appeals that are part of the general court system. Each regional court has a panel consisting of one law-trained judge, one environmental technical expert and two members selected depending on the expertise required in a given case.

The Environmental Review Tribunal in ***Ontario, Canada*** conducts judicial review of administrative decisions on environmental matters. The tribunal operates under the auspices of the Ministry of the Attorney General, which allows it independence from the agencies and ministries whose decisions it reviews.

Source: OECD, 2019a, 2017d, 2014c; Pring and Pring, 2016.

5.3. Capacity building

148. Poor institutional capacity impedes the achievement of consistently high level of compliance assurance across the country. It is the role of national environmental authorities to ensure that lower-level competent authorities have enough capacity to conduct their compliance monitoring effectively, as well as to ensure consistent compliance monitoring and enforcement practices nationwide. The division of responsibilities between different levels of governments will affect the methods of doing so, mainly through two types of instruments: 1) offering formal training to inspectors on compliance monitoring activities to ensure they accumulate sufficient knowledge and practical experience; 2) developing standard operating procedures or guidance. Environmental enforcement authorities also provide training to police and customs officers, prosecutors and judges dealing with environmental matters. The exchange of experience between compliance assurance professionals is increasingly organised through relatively formal networks.

5.3.1. Training

149. To ensure inspectors' professionalism and consistency, substantial training should focus not only on technical but also on generic inspections skills. Training for inspection and enforcement staff should be conducted both upon recruitment and on-the-job throughout their career, to ensure both up-to-date knowledge and adequate methods. Trainings can be organised directly by a higher-level authority or by private training providers.

150. The US EPA has been operating the National Enforcement Training Institute since 1991, providing free of charge classroom-based and online training to federal, state, local, and tribal environmental enforcement personnel on the full spectrum of compliance assurance tools. In Switzerland, cantonal authorities mostly send their staff to for training conducted by SANU – the largest private organisation specialising in information and training in environmental policy implementation (Mazur, 2011).

5.3.2. Guidance

151. A key issue affecting national consistency of compliance assurance is whether competent authorities in different jurisdictions use comparable methods of planning and conducting inspections. On top of national regulations that set minimum frequencies of inspections, the national environmental authority may provide more or less detailed guidance on how to target compliance monitoring. Having these types of guidelines is particularly important in countries in which there is a strong overlapping of inspection responsibilities between the national and subnational levels, such as in the United States.

152. The Swedish Environmental Protection Agency (SEPA) has issued a Guidebook on Operational Inspection that aims at ensuring the uniformity of compliance monitoring practices across the country. Most Swedish municipalities plan their inspections based on minimum requirements of a national ordinance, complemented by guidance developed by the Swedish Association of Local Authorities and Regions. SEPA also operates a telephone help desk that offers advice and interpretation on legal issues to regional and local environmental enforcement authorities (OECD, 2014c).

153. In the Netherlands, Infomil, an organisation created by the environment ministry, the Association of Provincial Authorities and the Association of Dutch Municipalities, has for over 25 years served as an intermediary between the various authorities and target groups. It operates a help desk that provides information to competent provincial and municipal authorities on a variety of regulatory subjects, including inspection and enforcement (Mazur, 2011).

154. In more centralised systems, such guidance can take the form of standard operating procedures. In France, the environment ministry's directorate-general responsible for compliance assurance issues a methodology of inspection visits that covers the preparation of a site visit, activities during the visit, and the reporting phase, and provides key document templates. Every inspector is issued a handbook

containing all essential procedural guidance, document templates, and supporting information (OECD, 2016). In Turkey, a software called “e-inspection” was developed in 2014 to plan, report and evaluate inspections. It includes standard inspection checklists, on-site inspection reports, as well as information on sanctions and prosecutions (OECD, 2019d).

5.3.3. Networks for peer learning

155. Professional networks of common activities are a preferred peer learning mechanism in many OECD countries, particularly at the subnational level (Box 5.2). Networks allow sufficient flexibility to address member agencies’ operational priorities without a need to compromise their institutional autonomy. They can have various functions, including:

- promoting the exchange of information and experiences on environmental compliance monitoring and enforcement issues
- raising professional standards in the interpretation and administration of environmental law
- facilitating training for environmental inspectors according to harmonised competency criteria
- undertaking joint technical projects
- facilitating the development and bilateral and multilateral relationships among member enforcement authorities on issues of mutual interest
- channelling the participation by member enforcement authorities in international compliance assurance networks such as the International Network for Environmental Compliance and Enforcement (INECE), the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) and the Asian Environmental Compliance and Enforcement Network (AECEN).

Box 5.2. National compliance assurance networks

The Network for ***Ireland's*** Environmental Compliance and Enforcement (NIECE) was established in 2004 and is co-ordinated by the Irish EPA's Office of Environmental Enforcement. Participants include local authorities, national enforcement agencies, government departments and NGOs. The goal of NIECE is to harness collective resource and expertise to co-ordinate a consistent and more effective approach to environmental enforcement, through linking practitioners and their work areas, sharing expertise and creating learning opportunities.

The Australasian Environmental Law Enforcement and Regulators network (AELERT) is a network of ***Australia's*** federal, state and local regulatory agencies, as well as national and regional agencies from ***New Zealand***. AELERT works mostly at the national and state level, but the Steering Committee jurisdictional representatives also seek to engage local government agencies and provide a forum for wider discussion. AELERT has developed a Shared Learning Resources web space for all member agencies to share training packages and presentations.

Environmental Collaboration ***Sweden*** is a partnership created in 2005 at the initiative of the country's County Administrative Boards (CABs). The network provides civil servants at all administrative levels with guidance, information and training related to environmental law implementation. It aims at ensuring a more uniform handling of regulatory issues across the country by providing CABs with guidance, information, training courses and seminars. This model of national-regional collaboration has been replicated in many Swedish counties through Environmental Collaboration Regionally, which is a vehicle for subnational-local cooperation between the CAB and the county's municipalities.

The Environmental Council of the States (ECOS), established in 1993, is a national non-profit association of state and territorial environmental agency leaders in ***the United States***. ECOS supports exchanges of ideas and experiences among states and articulates state position to Congress, federal agencies and the public.

Spain's Autonomous Communities (regions) initiated in 2008 the establishment of a State Environmental Inspection Network (REDIA). Regional environmental enforcement authorities, with the participation of the national environment ministry, exchange best practices through projects of common interest such as development of guidance documents and organisation of technical workshops.

In ***Chile***, a National Environmental Inspection Network (RENFA) was created in 2014 in order to promote the harmonisation of criteria and procedures for environmental inspections and build capacity of different public bodies undertaking compliance monitoring.

In ***Belgium***, an Environmental Expertise Network has been created across the offices of the country's public prosecutors. It aims at co-ordinating criminal enforcement actions with regard to issues of federal jurisdiction (e.g. transit and export of hazardous waste). It also disseminates expertise among public prosecutors' offices and supports prosecutors dealing with environmental cases.

Source: OECD, 2021b, 2021c, 2019a, 2014c; OECD/ECLAC, 2016; Mazur, 2011.

5.4. Performance measurement

156. Periodic performance assessments of environmental enforcement authorities serve many purposes. They assess progress and determine the whether the strategies used to achieve compliance are efficient. Periodic reporting of programme activities and successes to the regulated community

contributes to deterrence by raising awareness that violations will likely be identified. Programme evaluation also provides a basis for transparency and accountability vis-à-vis policy makers and other stakeholders.

157. Performance indicators of environmental compliance assurance are usually developed and used by the authorities that exercise direct responsibilities for compliance promotion, monitoring and enforcement. However, these indicators play a particular role in decentralised systems of environmental governance where subnational environmental authorities have substantial compliance assurance powers. Indicators in such systems become the national authority's tools of oversight and benchmarking as well as measures of national coherence of non-compliance responses.

158. Traditionally, regulatory agencies' performance and cost-effectiveness have been managed and evaluated largely by reference to their resources (inputs) or level of activity (outputs), rather than the outcomes they accomplish. In recent years, enforcement agencies have started to recognise that relying on input and output indicators alone does not account for qualitative differences in the effectiveness of various enforcement activities. They have started to develop outcome measures to enable policy makers and the public to see the actual impact of their programmes.

159. For example, the Canadian federal government introduced in 1996 a Planning, Reporting and Accountability Structure, which was replaced in 2005 by the Management, Resources and Results Structure policy. All government departments must develop Performance Measurement Frameworks – logic models that link activities to outcome-focused performance indicators in all major programme areas (OECD, 2017a).

160. In particular, intermediate outcomes characterise changes in compliance knowledge and behaviour of the regulated community. They may cover greater understanding by regulated entities of how to comply with environmental requirements, improved environmental management (adoption of best practices), reduced environmental impact (e.g. pollution releases or accidents), or increased compliance. There are three main approaches to designing outcome indicators of compliance assurance (Mazur, 2010):

- Performance assessment focused on the effectiveness of compliance assurance instruments across regulations and environmental problems. This approach, used by the US EPA, allows the competent authority to measure the improved behaviour of the regulated community as a result of compliance assistance, inspections and enforcement actions.
- Performance assessment focused on specific environmental problems reflecting the competent authority's strategic priorities. This approach is used in the United Kingdom, Denmark and Ireland.
- Multi-tier performance assessment focused on pollutant-specific results of regulatory actions at the lower level and on the overall programme effectiveness at the higher level.

161. There are several country examples of using a combination of input, output and outcome measures to manage and improve a compliance assurance programme. The Irish EPA conducts performance reviews of local authorities with regard to their compliance monitoring and enforcement planning and implementation. Performance results are generated from 26 environmental enforcement indicators (OECD, 2021b). Flanders and the Brussels Capital Region in Belgium are considering introducing intermediate outcome indicators of behaviour of the regulated community (OECD, 2021c). However, the development and implementation of outcome indicators of compliance assurance activities has generally slowed down over the last decade, mostly due to the lack of resources for performance data collection and management.

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Annex A. Summary of key good practices

Compliance assurance practices	Referenced countries
Compliance promotion	
Sectoral approach to compliance promotion	United Kingdom
Compliance assistance collaboration with non-government partners	United States
Compliance assistance through direct contact with businesses	Australia, Finland, United Kingdom
Outreach to the regulated community	Canada, Estonia, France
Web-based tools to disseminate information on good compliance practices	United Kingdom, United States
Public disclosure of compliance records	Canada, Finland, France, Japan, Netherlands, United Kingdom, United States
Compliance monitoring	
Risk-based inspection planning by facility category	Canada, France, United States
Risk-based inspection planning by scoring individual facilities	Denmark, Latvia, Spain, United Kingdom
Adequate procedures to respond to citizens' complaints	Ireland, Korea, Latvia, Slovenia
In-depth compliance assessments	Netherlands, Norway, United Kingdom
Thematic inspection campaigns	Belgium, Iceland, Latvia, Portugal, Slovenia, Sweden
Enforcement	
Non-coercive enforcement instruments	Belgium, Finland, Netherlands
Conditional administrative fines	France, Poland, Sweden
Legally set minimum fines	Austria, Portugal, Sweden
Enforcement undertakings	Australia, United Kingdom, United States
Decriminalising lesser offences in favour of administrative enforcement	Canada, Ireland, United Kingdom

Compliance assurance practices	Referenced countries
Providing alternatives to prosecution	Canada, Israel, Netherlands, United Kingdom
Civil judicial enforcement (beyond remediation/corrective action)	United States
Formal non-compliance response policies	Canada, France, Netherlands, New Zealand, United Kingdom, United States
Recovery of economic benefit of non-compliance	Australia, Israel, United Kingdom, United States
Formal guidance on accounting for gravity of the offence	United Kingdom, United States
Working with fiscal authorities to enforce payment of fines	Belgium, Greece, Slovenia
Institutional aspects of compliance assurance	
Co-ordination bodies between national and subnational enforcement agencies	Canada, Spain, Sweden, Switzerland, United States
Performance oversight of subnational authorities by national ones	Ireland, Norway, United States
Co-ordination of compliance monitoring across national regulatory agencies	Canada, Denmark, Finland, Switzerland
Collaboration with the police, customs and prosecutors	Belgium, France, Greece, Luxembourg, Netherlands, United Kingdom
Specialised environmental police and prosecutors	Colombia, Italy, Norway, Spain
Dedicated environmental courts	Canada, Australia, New Zealand, Sweden
Guidance and training for lower-level enforcement authorities	France, Netherlands, Sweden, Turkey, United States
Networks for peer learning	Australia, Belgium, Chile, Ireland, New Zealand, Spain, Sweden, United States
Outcome performance measurement	Canada, Denmark, Ireland, United Kingdom, United States