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The environmental compliance assurance system in Armenia

Current situation and recommendations

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Purpose and Scope

A well-functioning system of environmental compliance assurance has a multitude of societal and economic benefits. It protects public health and the environment, and helps countries implement environmental policies at lower overall costs. It promotes the rule of law and good governance, as well as the expansion of citizen engagement. Finally, it can boost investor confidence and stimulate the creation of new jobs.

This report takes stock of the state of the environmental compliance assurance system in Armenia, including its legal and institutional framework, monitoring, enforcement and compliance promotion activities. Based on this assessment, it identifies gaps and provides recommendations for improvement. The environmental compliance assurance system described in this report does not extend to mobile sources of pollution.

The report draws on significant work on environmental compliance assurance in the Eastern Europe, Caucasus and Central Asia region that the OECD carried out for a number of years. This includes notable work by the Environmental Action Programme (EAP) Task Force and the Greening Economies in the European Union's Eastern Neighbourhood (EaP GREEN) Programme. However, its scope does not comprise an assessment of the extent to which Armenia has implemented recommendations in previous OECD reports related to environmental compliance assurance. Nor does it thoroughly assess Armenia's implementation of the Comprehensive and Enhanced Partnership Agreement with the European Union.

The COVID-19 pandemic made gathering information for this report more difficult, with interviews taking place remotely.

This review was prepared in the framework of the European Union for Environment (EU4Environment) Action. Specifically, it addresses component 3.2 on Environmental Compliance Assurance and Liability Regimes, subcomponent 3.2.1 on "Strengthening of Compliance Assurance Systems, Instruments and Tools" and subcomponent 3.2.2 on "Reform of High Impact Enforcement and Compliance Instruments, including Environmental Liability".

EU4Environment aims to help the six Partner countries – Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine – to preserve their natural capital and increase people's environmental well-being. To that end, it supports environment-related action; demonstrates and unlocks opportunities for greener growth; and sets mechanisms to better manage environmental risks and impacts. The Action is funded by the European Union and implemented by five Partner organisations: OECD, United Nations Economic Commission for Europe, United Nations Environment Programme, United Nations Industrial Development Organization and the World Bank based on a budget of some EUR 20 million. The Action implementation period is 2019-22.

Methodological approach and acknowledgements

The report takes stock of the system of environmental compliance assurance in Armenia as of November 2021, identifies gaps and provides recommendations for improvement.

The report was drafted by Ms. Olga Olson (OECD). Mr. Krzysztof Michalak (OECD) provided overall guidance.

The report was prepared based on desk research and secondary sources, including documents shared by several stakeholders in Armenia; findings from a mission to Yerevan in November 2019 for EU4Environment components 3.1 and 3.2; virtual interviews with several stakeholders in October 2020 and February 2021(listed below); and presentations by stakeholders from Armenia at the first virtual regional seminar with Eastern Partner countries on environmental compliance assurance on 25 November 2020. The draft review was presented and discussed with stakeholders from Armenia during a virtual discussion on 28 June 2021, and revised following their written comments. The revised draft review was then presented and discussed at the second virtual regional seminar with Eastern Partner countries on 17-18 November 2021, and further refined following the discussion and the written comments received.

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The assessment of gaps and recommendations in this report considers the views of stakeholders in Armenia. It drew on good practices identified in the long-standing OECD work on the subject, as well as from the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL). In addition, it benefited from an assessment by environmental compliance assurance professionals from OECD countries that compared the situation in Armenia to good practice in their countries and in the European Union. Specifically, it benefited from reviews and useful suggestions from Mr. Simon Bingham, International Development Manager at the Scottish Environment Protection Agency and former Cross-Cutting Expert Team Leader and Board Member of IMPEL; Mr. Duncan Giddens, Freelance consultant, Owner/Director, Optimus Management Solutions Ltd. and former Senior Project Manager, Environment and Business, Environment Agency of England; and Mr. Henk Ruessink, Co-ordinating Special Adviser, Environment and Housing Network, External Relations and Services, Human Environment and Transport Inspectorate of the Netherlands.

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Abbreviations and acronyms

AMD	Armenian dram		
СЕРА	Comprehensive and Enhanced Partnership Agreement		
CIF	Climate Investment Funds		
EBRD	European Bank for Reconstruction and Development		
EaP	Eastern Partnership		
EaP GREEN	"Greening Economies in the Eastern Neighbourhood" programme		
EITI	Extractive Industries Transparency Initiative		
ENPI	European Neighbourhood and Partnership Instrument		
EPMIB	Environmental Protection and Mining Inspection Body		
EU	European Union		
EU4Environment	European Union for Environment		
EUWI+	European Union's Water Initiative Plus		
FLEG	Forest Law Enforcement and Governance		
GCF	Green Climate Fund		
GEFF	Green Economy Financing Facility		
HMC SNCO	Hydrometeorology and Monitoring Center State Non-Commercial Organization		
IMPEL	European Union Network for the Implementation and Enforcement of Environmental Law		
ISO	International Organization for Standardization		
КРІ	Key Performance Indicator		

MAC	Maximum Allowable Concentration		
MoU	Memorandum of Understanding		
NGO	Non-Governmental Organisation		
OECD	Organisation for Economic Co-operation and Development		
REC C	Regional Environmental Centre for the Caucasus		
SREP	Scaling-up Renewable Energy Programme		
TAIEX	Technical Assistance and Information Exchange Instrument of the European Commission		
UNDP	United Nations Development Programme		
UNECE	United Nations Economic Commission for Europe		
UNEP	United Nations Environment Programme		
UNIDO	United Nations Industrial Development Organization		
wно	World Health Organization		

Executive summary

Armenia faces high population exposure to fine particulate matter (PM_{2.5}), and environmental risks from mining, illegal forest logging, overexploitation of water resources, desertification and scarce land resources. The country's state of pollution and certain characteristics of its geography and economy thus make environmental compliance assurance a priority. This report takes stock of Armenia's environmental compliance assurance system, identifying gaps and recommending improvements where possible.

Key findings

Legal and permitting framework

- Armenia has most of the laws needed to address its environmental problems. Regulations set out
 emission thresholds for which media-specific permits are required, as well as maximum allowable
 concentrations for certain pollutants.
- Permitting is being digitised.
- Armenia signed a Comprehensive and Enhanced Partnership Agreement (CEPA) with the European Union that covers environmental issues and is stimulating legislative reform. In addition, it has adhered to 20 international agreements, which are reflected in national environmental legislation.
- Although Armenia's environmental regulatory framework is comprehensive, it would benefit from review.
- Armenia holds public consultations on draft environmental laws and has improved transparency, especially with regards to the mining legislation.

Institutional framework for environmental compliance assurance

- The key institutions for environmental compliance assurance in Armenia are the Ministry of Environment, which develops policy; issues and revokes permits; and carries out overall supervision; the Environmental Protection and Mining Inspection Body (EPMIB), which ensures performance control for environmental and subsoil safety legislation; and the Inspection Bodies' Co-ordination Bureau within the Office of the Prime Minister (PMO), which co-ordinates the EPMIB's activities.
- Having the EPMIB report to the PMO rather than the Ministry of Environment is unique and could
 increase the EPMIB's visibility. Nevertheless, the EPMIB and the ministry stand to gain from more
 regular communication and co-ordination.

The environmental compliance monitoring regime

 Various channels for monitoring environmental compliance include planned risk-based inspections; ad hoc inspections; ambient monitoring; self-monitoring; independent monitoring by the public and non-governmental organisations (NGOs); and consideration of alerts received through written applications, hotlines or social media.

- The risks of permitted entities are based on a methodology adopted in 2019, which allows the EPMIB to maintain a database on the risk assessment of all economic entities.
- The EPMIB carries out inspections exclusively by checklist in accordance with Armenia's legislation. This is useful for inspecting uniform sites, but the number of yearly planned site inspections appears to be low.
- Although companies must submit quarterly and annual reports to the EPMIB, there is no publicly available information on self-monitoring.

The environmental compliance enforcement regime

- The EPMIB uses a wide variety of instruments in response to non-compliance with environmental regulations. These include warnings, fines, proposals to the authorised body to revoke permits, and referral of cases with high environmental damage and of criminal cases to police.
- A four-tier appeals process is in place against imposed penalties, although there are concerns over delays due to the cumbersome court procedures.
- The environmental payments regime consists of taxes on permitted volumes of emissions, which
 are increased for exceeding permitted pollution thresholds, and of payments for environmental
 damage using formulas specified in decrees to calculate fines for such damage. Nevertheless, the
 environmental payments regime faces challenges such as a high number of taxed pollutants and
 fine rates too low to dissuade polluters.
- Armenia lacks a legal framework for environmental insurance.

The use of compliance promotion instruments

- The EPMIB provides most awareness-raising and training activities on environmental compliance assurance as part of its mandate. It uses social media for awareness raising, develops annual plans for awareness-raising measures, and organises meetings with economic operators, NGOs and economic unions to share information. At these meetings, the EPMIB regularly presents information on compliance with environmental requirements, as well as on liability arising from their violation. However, no details are available about such meetings on the EPMIB's website.
- The Ministry of Environment and the EPMIB carry out some promotional activities jointly. For example, they publish information on line and co-operated on a campaign to protect Lake Sevan in 2021.
- Armenia has made progress on compliance promotion. However, knowledge of regulations, compliance assurance instruments and institutional responsibilities for environmental compliance assurance need reinforcement.

Recommendations

Legal and permitting framework

- Review the environmental regulatory framework to identify ways to make it less ambiguous and provide more incentives for companies to fully ensure compliance.
- Consider moving towards an integrated approach to permitting.
- Take into account the weight of pollutant toxicity in permit requirements.
- Enhance communication with interested stakeholders, including the private sector and NGOs, on environmental policies and permits.

Institutional framework for environmental compliance assurance

 Provide opportunities for the EPMIB to review important environmental legislative proposals, comment on new permit applications and have easy access to permits.

- Consider clarifying the duties of the Ministry of Environment and the EPMIB to the general public in regard to, for example, complaints related to environmental issues.
- Consider developing a training plan to build capacity of inspectors within the EPMIB using objective Key Performance Indicators that ideally combine both quantitative and qualitative aspects.
- Improve the EPMIB's information management through automation where possible.

The environmental compliance monitoring regime

- The risk criteria would benefit from further simplification of risk calculation and flexibility in the risk categories.
- Prioritise the updating of capabilities and equipment of the EPMIB laboratory that participates in control and of the Hydrometeorology and Monitoring Center State Non-Commercial Organization that conducts ambient monitoring.
- Consider outsourcing some monitoring activity to the private sector and encourage the two laboratories above to co-operate more closely.
- Examine the effectiveness of companies' self-monitoring reports that are submitted quarterly and annually to the EPMIB.
- Build a mechanism that allows the EPMIB to respond immediately to received alerts and keep track
 of received complaints.
- Consider drawing on the independent monitoring of NGOs to fill gaps in capacity.

The environmental compliance enforcement regime

- Adopt a comprehensive and coherent enforcement policy within the EPMIB with guidance on offences and the application of sanctions to ensure transparency and consistency of applied penalties.
- Consider making warnings, which are discretionary, the EPMIB's lowest most appropriate response tool for non-significant harm to the environment.
- Respond to NGO concerns about lack of environmental liability for mining waste and biodiversity.
- Launch a comprehensive review of its environmental payments system to better reflect environmental harm and provide stronger disincentives to pollute.

The use of compliance promotion instruments

- Step up promotional and training activity through, for example, providing more information on line that addresses the needs of regulated entities; make use of metrics to check the use of online information.
- Review how Armenia encourages companies to adopt green practices, including the potential use
 of financial incentives to promote environmental compliance.

1 Introduction

- 1. A robust environmental compliance assurance system brings large benefits to a country's economic and social well-being. It protects public health and the environment, and ensures that natural resources continue to provide valuable goods and services to society. It helps countries obtain better environmental results and implement environmental policies at lower overall costs by focusing scarce resources where they are most needed and where they have the greatest effect. It promotes the rule of law and good governance, increases investor confidence by reducing business risks, stimulates innovation, potentially creates jobs and promotes a level playing field among companies. Environmental compliance assurance activities can also enhance transparency and promote citizen involvement in enforcement.
- 2. Armenia's state of pollution and certain characteristics of its geography and economy make environmental compliance assurance a priority for the country. Armenia's 2019 mean population exposure to fine particulate matter (PM_{2.5}) is over three times higher than the 2015 World Health Organization guideline and almost seven times higher than the updated 2021 guideline (OECD.stat, 2019_[1]; WHO, 2021_[2]). The welfare cost associated with PM_{2.5} pollution was approximately 12% of gross domestic product equivalent in 2019 compared to the EU average of 3% (OECD.stat, 2019_[3]). Armenia's 2014-25 Development Strategy identifies four main areas of environmental concern related to economic growth in the country: environmental risks associated with expansion of the mining industry; illegal forest logging; overexploitation of water resources; and increased desertification risk (Government of Armenia, 2014_[4]). Armenia has scarce land resources and a landlocked geographical position, and about 15% of its lands are prone to droughts (Government of Armenia, 2012_[5]; World Bank, 2018_[6]).
- 3. Mining is strategically important and one of Armenia's fastest growing exporting sectors (World Bank, $2020_{[7]}$). Yet it faces significant environmental safety challenges. Metal mining operations in the country are considered to be environmentally unsustainable, with evidence suggesting this might also be the case for non-metal mining operations (World Bank, $2016_{[8]}$). Deficiencies in the regulatory system and some failures by supervision and control institutions are the overarching reasons for concerns about sustainability. Proper implementation of laws is also affected by inadequate environmental management practices by companies, which can only sometimes be explained by lack of awareness and expertise (World Bank, $2016_{[8]}$).
- 4. In view of these factors, this report takes stock of the environmental compliance assurance system in Armenia. Chapter 2 reviews the legal and institutional set-up for environmental compliance assurance in the country. Chapter 3 analyses environmental monitoring activity, including inspections. Chapter 4 provides an overview of activities aimed at enforcement of compliance with environmental regulations. Chapter 5 presents findings in regard to promotion of environmental compliance. Where possible, the report identifies gaps and includes recommendations for improving the system, which are also summarised at the end of the report in Table 6.1.

The legal and institutional framework for environmental compliance assurance

Legal and permitting framework

5. The legal and permitting framework has a direct impact on environmental compliance. The quality and clarity of environmental regulations, for example, affect the compliance behaviour of regulated entities. A crucial question is whether environmental regulations sufficiently remove benefits of non-compliance. The quality of permits and the permitting procedure are essential for effective regulation and monitoring activities, including inspections. According to the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) "Doing the Right Things" methodology, the legal and permitting regime constitutes an integral part of an environmental compliance assurance cycle (Figure 2.1).

Figure 2.1. IMPEL "Doing the Right Things" methodology



Regulatory Cycle

- Steps are interrelated
- A missing or underdeveloped step affects the steps that follow

e.g.

- Inspection is effective if permits or legislation are adequate
- Monitoring only makes sense if an inspection system is in place

Note: IMPEL= European Union Network for the Implementation and Enforcement of Environmental Law. Source: (Kramers, 2020_[9]).

Armenia has in place most laws needed for addressing its environmental problems (World Bank, 2016_[8]). The most relevant pieces of legislation governing its environmental compliance assurance are listed in Annex A. Two pieces of recent legislation are noteworthy. The Law on Inspection Bodies, adopted in 2014, sets out key elements of compliance monitoring and enforcement activities across all sectors of the economy. Meanwhile, a Methodology and General Description of Criteria Determining Risks-Based Decree on the Risk Assessment Conducted by the Environmental Protection and Mining Inspection Body of Armenia was adopted in 2019. The methodology established three categories of risk for economic entities and described how to determine risk. Some relevant legislation appears to be outdated, such as the Code on Administrative Offenses from 1985.

- 6. On 1 March 2021, Armenia's Comprehensive and Enhanced Partnership Agreement (CEPA) with the European Union, signed in 2017, came into force (European Commission, 2021_[10]). Its third chapter covers the environment, including environmental compliance matters. For example, it foresees the approximation of provisions of the Environmental Liability Directive (ELD) and the Industrial Emissions Directive (IED). Annex B provides details on the timelines for these two documents. In addition, Armenia adheres to 20 international agreements, listed in Annex C, for which the compliance provisions are included in national legislation.
- 7. Draft environmental legislation in the country undergoes public consultation. Armenia ratified the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (the Aarhus Convention) in 2001 (Government of Armenia, 2008[11]). It has also translated the UNECE Maastricht Recommendations on Promoting Effective Public Participation in Decision-making in Environmental Matters (Government of Armenia, n.d.[12]). Transparency in Armenia's environmental legislation in the mining sector has improved significantly as a result of the country's participation in the Extractive Industries Transparency Initiative since 2017.
- Government resolutions regulate permitted levels of emissions in Armenia, and entities that exceed a certain emission volume threshold are required to obtain an environmental permit. According to Article 13 of the 1994 Law on Atmospheric Air Protection, permits are required for entities that exceed 2 billion cubic metres (m³) of the required volume of air use per year (or 2 000 m³ per second). 1 Every entity must obtain a water use permit for any type of water use, except for cases specified in the Water Code of Armenia (Government of Armenia, 2002[13]). Water use is not allowed in cases where it could reduce national water resources or does not meet water use standards (Government of Armenia, 2002[13]). The Water Code of Armenia sets out criteria for decision-making authorities to consider in the issuing of permits (Government of Armenia, 2002[13]). A 2005 Decision on Waste Generation Standards establishes how legal entities regulate waste management, including generation and disposal (Government of Armenia, 2006[14]). Another decision, from 2006, sets out the procedure for waste passports and provides a sample passport form (Government of Armenia, 2006[15]). In addition, legislation sets out maximum allowable concentration (MACs) of certain pollutants. For example, a 2006 government resolution sets out MACs for 389 atmospheric pollutants, also indicating their level of toxicity (Government of Armenia, 2006[16]). In a 2011 decision, Armenia specifies norms for water quality assurance for each basin management area that are updated every six years (Government of Armenia, 2011[17]). Basin management plans later reflect these norms (Government of Armenia, 2006[18]).
- 9. Applicants can apply for permits to local offices of the Ministry of Environment through paper applications that are submitted in person or sent by post. The digitisation of the permit application procedure is ongoing. Permitting is single-media based, with a separate application required for each environmental medium. Applicants must pay a small fee for permit applications. A comprehensive fee breakdown for the various permit applications is not available, but water use fees are quite low according to EU practice. Armenia charges approximately EUR 15 for a legal person and about EUR 18 for a physical person for a water use permit. If problems arise with submitted applications, applicants can amend and resubmit them. Environmental permits are issued centrally, with each permit signed by the Minister of Environment and the operator.
- 10. The Ministry of Environment issues approximately 70-80 permits per year for emissions/discharges into the atmosphere. In 2020, it issued 180 new water use permits. Information collected shows that it rejects about 10% of water permit applications even after corrections for reasons such as overlapping water use rights.

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¹ Entities – such as small and medium-sized enterprises – with emissions below the established thresholds may operate without a permit or might be required to provide a notification of their operations instead.

- 11. For some stakeholders, the main challenge to effective environmental compliance assurance in Armenia is ambiguous environmental regulations that lack incentives to encourage companies to comply. Therefore, Armenia might benefit from a review of its environmental legislation to identify ways of clarifying regulations, removing any redundancies in regulations and increasing deterrence (World Bank, 2016_[8]). Such a review could take place in the context of Armenia's revision of legislation on environmental damages and losses, which it is considering in the framework of the CEPA.
- 12. Armenia could strengthen its permitting regime in several ways. First, it could be beneficial to adopt an integrated approach to permitting for larger and more complex installations. The approach of the EU IED can provide a possible direction (European Parliament and Council, 2010_[19]). Second, although a full picture of permit conditions for each environmental medium is not available, information on air emissions suggests the issuance of permits depends predominantly on their volume. If this is the case, the weight of pollutant toxicity in the issuance of environmental permits could be explored; emitters with smaller but more toxic emission volumes might be causing significant harm to the environment. Third, anecdotal evidence suggests the processing of permit applications is often delayed as it is still done on paper, requires manual handling and involves more than one ministry. The requirement for the Minister of Environment to sign off every issued permit presents a potential bottleneck in the process. In view of this, it would be useful to look into ways of streamlining the permitting process in Armenia and making it more efficient. The ongoing digitisation of permits and the permitting procedure is a useful step towards achieving this goal.
- 13. Non-governmental organisations (NGOs) report scarce opportunities to share their views with policy-making authorities; consultation seems to happen most often through e-mail. In addition, there are concerns about the extent to which the Ministry of Environment considers views expressed by NGOs. Therefore, the government of Armenia might consider reviewing its tools for addressing opinions of NGOs, as well as the private sector and the public, in its environmental policy making. The government could consider formal consultations on new policies and legislation, as well as on permit applications. It could also establish regulatory stakeholder groups at national and local levels for specific regulatory topics (e.g. permitting, charges), media (e.g. water) or economic sectors. Bilateral meetings with NGOs and the private sector in addition to multilateral stakeholder groups would also be useful. These ways of communication would help increase the level of trust among various stakeholders. Finally, Armenia is encouraged to communicate with these stakeholders about the results of any such consultations.

Institutional framework

14. The main institutions in the area of environmental compliance assurance in Armenia are the Ministry of Environment (hereafter "the ministry") and the Environmental Protection and Mining Inspection Body (EPMIB) (Figure 2.2).

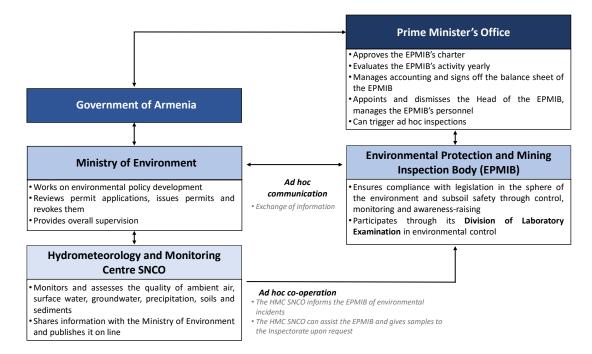


Figure 2.2. The main institutions in the environmental compliance assurance system in Armenia

Source: Author's own elaboration.

Institutional responsibilities

- 15. The **Ministry of Environment of Armenia** develops environmental policies, reviews and issues various types of permits and carries out overall supervision of environmental policy.
- 16. The ministry is considering restructuring its licensing and permitting department into media-specific departments. It co-operates with other governmental agencies on an ad hoc basis about specific issues, such as obtaining a legal opinion from the Ministry of Justice. A **Hydrometeorology and Monitoring Center State Non-Commercial Organization** (HMC SNCO) under the Ministry of Environment monitors and assesses the quality of ambient air, surface water, groundwater, precipitation, soils and sediments.
- 17. The **EPMIB** ensures compliance with Armenia's legislation in the sphere of the environment and subsoil safety (Prime Minister of Armenia, $2018_{[20]}$). It was established in 2017 based on the Law on Inspection Bodies (EPMIB, $2020_{[21]}$). This followed institutional reforms that began in 2009 to separate policy making and inspection. The Charter of the EPMIB was approved in 2018.
- 18. The EPMIB exercises control over the following areas: atmospheric air protection; use and protection of water, land and subsoil resources; state expertise; hazardous materials, production and consumption of waste; conservation of flora and fauna; environmental taxation and nature use fees; and statistical reports (Galoyan, 2020_[22]). It manages risks in the fields of nature protection and subsoil; implements control over the observance of Armenia's legislation; and organises measures to prevent or reduce negative impacts on the environment and the irrational use of natural resources (Galoyan, 2020_[22]).
- 19. In the last quarter of 2020, the EPMIB oversaw 4 477 entities that paid environmental tax and nature use fees. Information about the number of permitted entities that the EPMIB supervises is not available. Therefore, it is unclear whether it has an overview of all the permitted entities.
- 20. The EPMIB has six departments and two divisions at the central office in Yerevan (Galoyan, 2020_[22]):

- Water, Atmosphere, Soils, Wastes and Hazardous Substances Supervision Department
- Subsoil Supervision Department
- Biodiversity Supervision Department
- Quality Assurance Department
- Risk Assessment and Analysis Department
- Legal Assistance and Document Flow Department
- Division of Awareness and Public Affairs
- Division of Laboratory Examination.
- 21. The EPMIB consists of 11 territorial divisions subordinate to its head office, one per province (Aragatsotn; Ararat; Armavir; Gegharkunik; Yerevan; Lori; Kotayk; Shirak; Syunik; Vayots Dzor; Tavush).
- 22. The EPMIB officially has 195 posts, of which 167 are filled. Of these 167, 130 staff members conduct monitoring, reviews, inspections, audits and similar activities, while the remainder work on management, administrative and logistical issues. The EPMIB is financed from the state budget (Government of Armenia, 2005_[23]), which corresponds to widespread practice within the European Union. Its budget for 2019 amounted to about EUR 1.5 million, which was about 13% of the overall budget of Armenia's Ministry of Environment that year (about EUR 11.2 million). The funding of the EPMIB appears to be comparatively low, and should be reviewed in light of the inspectorate's mandate and the permitted entities it oversees.
- 23. Contrary to many other countries where an environmental inspectorate reports to the Ministry of Environment, the EPMIB is subordinated directly to the government. The **Prime Minister of Armenia** approves the Charter of the EPMIB, the composition of its management board and areas of activity; receives activity reports; examines inspection results; and approves the annual balance sheet (Prime Minister of Armenia, 2018_[20]). The prime minister also appoints and dismisses the Head of the EPMIB, and the Office of the Prime Minister (PMO) carries out accounting, procurement and personnel management of the EPMIB (Prime Minister of Armenia, 2018_[20]). From within the PMO, the Inspection Bodies' Co-ordination Bureau co-ordinates the EPMIB's activities.
- 24. Every year, the EPMIB's work is evaluated. The management board, which has ten members, examines a self-assessment report prepared by the EPMIB. It then forwards this report to the PMO for an annual performance review. There are no specific criteria for evaluating the EPMIB's performance.
- 25. The Ministry of Environment and the EPMIB exchange information with each other on an ad hoc basis every month. There is no Memorandum of Understanding (MoU) or agreement between these two bodies. The EPMIB also co-operates with other ministries as necessary.

Assessment of institutional arrangements

- 26. The institutional set-up for environmental compliance assurance in Armenia, in which the EPMIB functions as a separate government body reporting to the PMO, is unusual. In most other countries, the environmental inspectorate is a separate agency or a division/department embedded in the Ministry of Environment, with appropriate safeguards to guarantee the independence of the inspectorate and to prevent conflict of interest.
- 27. There are certain advantages to an arrangement where an environmental inspectorate reports to the Ministry of Environment. In countries where the inspectorate is attached to the ministry, the highest official of the inspectorate (e.g. the Inspector-General) usually has a direct communication and reporting line to that minister. In such a situation, the ministry would set the goals and resources for the inspectorate, and the minister would have political responsibility for the inspectorate's functioning. As one advantage of the inspectorate and the policy-making departments falling under the same government body, it would be

easier for them to communicate and to address ineffective environmental policies or their implementation. In addition, an environmental inspectorate should ideally review all important legislative proposals and assess whether new or revised legislation is enforceable and implementable. The inspectorate should also have an opportunity to comment on new permit applications and have easy access to the permits to inspect against. On the other hand, the institutional set-up in Armenia could give more weight to environmental compliance assurance and increase its visibility.

- 28. Regardless of the institutional arrangement, the Ministry of Environment and the EPMIB should ensure communication and co-ordination between themselves on the key elements just described. Their lack of communication and co-ordination was raised as an issue during OECD interviews. Senior officials of the two bodies should communicate regularly, for example, through regular meetings. The ministry and the EPMIB could envisage an MoU based on achieving environmental goals, setting out their respective roles, means of communication, and criteria for monitoring and reviewing performance. Such an MoU should be periodically reviewed, especially after a change in circumstances or resources. However, if an MoU is unlikely to achieve these goals, the parties could envisage changes to the respective charters.
- 29. In addition, and partly related to this point, the division of responsibilities between the ministry and the EPMIB can sometimes appear unclear. Complaints related to environmental issues should be submitted to the EPMIB, while issues related to permits go to the ministry. There is a flexible mechanism to redirect these complaints and issues from one entity to the other. The NGOs interviewed have pointed out this division of responsibilities is unclear, leading to delays in response times to their requests. Therefore, the Ministry of Environment and the EPMIB might consider clarifying their respective duties as regards environmental compliance assurance to the public. As mentioned, some countries use explicit agreements or MoUs to increase co-ordination between the ministry responsible for the environment and the environmental inspectorate.
- 30. Finally, the EPMIB would benefit from objective Key Performance Indicators in its yearly evaluation. These could be used for its self-review, as well as for the review by the PMO. Such criteria should ideally comprise both quantitative and qualitative components to make evaluations of the EPMIB's performance more objective and to allow tracking of its progress over time. Examples of quantitative criteria include the number of inspections, complaints handled, policy advice given and reports produced. Examples of qualitative criteria include chosen priorities, identification of new risks, development of innovative approaches and organisational development. In addition, performance criteria should consider the extent to which the EPMIB is achieving environmental protection outcomes.

Skills of inspectors

- 31. Inspectors at the EPMIB have the status of civil servants and are on open-ended contracts. They are selected through an open competition and need a university degree, as well as relevant work experience and skills. Inspectors undergo a yearly performance/activity assessment according to Armenia's Government Decision no. 1510 from 20 October 2011. These appraisals assess the effectiveness of employees' activity, personal (or) management skills; proper use of employee potential; development and use of employee professional skills; and improvement of rational allocation of work and effective management. Performance appraisal serves to encourage (reward) employees, identify training needs and promote employee advancement.
- 32. Inspectors participate in capacity building with local stakeholders, such as the civil service office, and with external partners. For example, they have received training on risk assessment from the Technical Assistance and Information Exchange Instrument of the European Commission.
- 33. The EPMIB is experiencing issues with human resources in terms of both the quantity and availability of skills. Therefore, the EPMIB could benefit from an analysis that compares available skills to required skills. Subsequently, it could adopt a dedicated training curriculum to address skill shortcomings

in an effective way, leading to the training of inspectors either as a group or on an individual basis. Both technical knowledge and expertise, as well as softer competences such as dealing with people, are important for inspectors to conduct their job properly.

Information management at the EPMIB

- 34. The EPMIB manages its information manually in most cases and lacks some information management processes. It keeps a manual database of permits, and plans to procure digital software for this. For its inspection purposes, the EPMIB uses permits published on line by the Ministry of Environment. The ministry updates its water use permits on line each quarter, and sends reports about them to the EPMIB. The EPMIB also keeps manual records of other processes such as inspection results as it does not have electronic software for these purposes. Finally, it does not have an effective way of keeping track of environmental complaints and alerts (see more details in Monitoring).
- 35. In view of this, the EPMIB could consider improvements in information management including automation when possible to help keep track of permits, inspections and inspection results, and alerts received. It believes an electronic control system planned for 2022 and the procurement of electronic equipment such as tablets can help it increase the efficiency, quality assurance, transparency, reliability and accountability of its activities.
- 36. One simple option for managing information on permits is using inexpensive permit software on an electronic device such as a tablet. In this case, a digital permit can also play a second role as a checklist to be filled during inspections. It would be important to ensure that any digital tools employed by the EPMIB are fully compatible with the digitisation of permits that the Ministry of Environment is undertaking.
- 37. An internal system for recording the planning, occurrence, frequency and outcomes of inspections could be used for generating a compliance history and profile of the economic operators over time.

The environmental compliance monitoring regime

38. Armenia uses a variety of tools to monitor compliance with environmental regulations. These include planned inspections based on risk; ad hoc inspections; ambient monitoring; self-monitoring by companies; and independent monitoring by the public and non-governmental organisations (NGOs).

Inspections

- 39. Armenia applies a risk-based approach to inspections, which are governed by two main documents. The Law of Armenia on Organizing and Performing Inspections from 2000 provides a definition for a system of risk-based inspections and inspection planning in the country (Galoyan, 2020_[22]). According to this law, a risk-based inspection system is a set of measures by inspection bodies to plan inspections used to target areas and objects of control (Galoyan, 2020_[22]).
- 40. The Methodology and General Description of Criteria Determining Risks-Based Decree on the Risk Assessment Conducted by the Environmental Protection and Mining Inspection Body of Armenia was adopted in August 2019 (Galoyan, 2020_[22]). This document defines risk as the probability of harming the environment. It establishes three categories of risk for economic entities, with a corresponding frequency of inspection: high risk (once a year); medium risk (once in three years); and low risk (once in five years).
- 41. According to the methodology, economic entities in the high risk group make up at least 70% of those subject to inspection in a given year. Those in the low risk group make up at least 5% of entities inspected in a given year (Government of Armenia, 2019_[24]).
- 42. The risk of economic entities is calculated as the sum of sectoral and individual risk. The following steps guide the assessment of risk of economic entities:
 - preliminary sectoral risk assessment according to the types of activities of economic entities
 - determination of individual risk of economic entities as a result of inspection
 - classification of economic entities into risk groups.
- 43. It is a positive development that Armenia has adopted the principle of risk-based inspections. However, the risk assessment system could be further simplified and would benefit from more flexibility. At the initial stage of risk assessment, the permitting process could be used to assess risk, as it should already provide a lot of relevant information. Inspections can then contribute to further completing risk assessment. Risk categories seem to be set once and for all, but they should ideally be flexible to reflect changes to the environment, the industry or emissions. Even if a yearly inspection plan is set based on risk, there needs to be room for revision should there be a non-compliant site.
- 44. The Environmental Protection and Mining Inspection Body (EPMIB) also maintains and regularly updates a database on the risk assessment of all economic entities. However, it is not clear whether such a database is operational. As already mentioned, it seems the EPMIB does not have a complete and up-to-date overview of all the operations/enterprises that must comply with environmental requirements. Ideally, it should have information about the total quantity of permitted entities, broken down by type and

- risk, to allow for inspection planning. Such a complete overview is the first and essential step when classifying according to environmental risks.
- 45. Regarding planned inspections, the EPMIB has to submit an inspection report by 1 December every calendar year and to publish its yearly inspection plan on 1 January the following year. The EPMIB publishes inspection plans on its website, which is a good practice. According to the website, the 2020 inspection plan comprised 90 planned inspections, 63 of which were high risk, 23 medium risk and 4 low risk (EPMIB, 2019_[25]).
- 46. However, the number of planned inspections seems to be low. This is especially true considering the Ministry of Environment issues about 70-80 permits yearly just for air emissions, and had issued 180 water permits in 2020 alone. It would be useful to examine the inspection planning and responsibilities of inspectors more closely to see why such a low number of inspections is planned. The EPMIB has stated it lacks resources to do all of its inspections, and consequently cannot implement inspections of all entities/economic operators. It believes that if appropriate resources are available, it could carry out all inspections according to the degree of risk classification. In addition, it is not clear how the overall inspection plan incorporates inspection of non-compliant entities. According to good practice, the EPMIB should inspect such entities every year until they are compliant. Finally, the EPMIB should ensure that the same inspectors do not routinely visit the same sites.
- 47. The EPMIB has a guidance document for inspections. It contains a standard checklist for carrying out inspections, which is useful for efficiency and consistency of inspections for uniform sites.
- 48. Ad hoc inspection visits take place based on information received from various sources, including investigation bodies, individuals, the prime minister, mass media, etc. A submitted complaint cannot be anonymous and must be well-grounded to warrant such an inspection. If the EPMIB receives a complaint about an entity that is already being inspected that year, it will usually wait to handle the complaint until carrying out the scheduled inspection. Of 110 inspections completed in 2020, 76 were non-planned (i.e. not included in the annual inspection programme) (EPMIB, 2020[26]).

Laboratory monitoring and analysis

- 49. Two laboratories conduct environmental sampling and analysis in Armenia. The Division of Laboratory Examination at the EPMIB participates in control activities. The Hydrometeorology and Monitoring Center State Non-Commercial Organization (HMC SNCO) under the Ministry of Environment conducts ambient environmental monitoring.
- 50. The EPMIB's **Division of Laboratory Examination** is the only chemical laboratory in the country that participates in environmental control processes. It performs sampling of water and soil, measures emissions into the atmosphere and compares the research results with Armenia's environmental standards. These results serve as the basis for calculating the damage incurred on the environment and for assessing the pollution risk of economic entities. According to the EPMIB, the laboratory's capabilities and technical equipment do not meet modern requirements. This creates significant obstacles for the full implementation of the EPMIB's functions and does not allow for quick responses to alerts about violations. For example, the method used to analyse water does not provide complete results, and analysis of atmospheric air emissions is limited.
- 51. **The HMC SNCO** under the Ministry of Environment monitors and assesses the quality of ambient air, surface water, groundwater, precipitation, soils and sediments (Ministry of Environment of Armenia, n.d._[27]). The HMC SNCO provides data to the ministry regularly and upon request to support environmental policy making, and makes data publicly available on line. It provides data on environmental quality to economic operators for free and can also establish commercial contracts with operators to provide them more specific and detailed data. It can also sign joint monitoring agreements with water users. It has

applied for ISO 17025 accreditation and is awaiting the results. Of its 780 staff, 30 work at the laboratory itself.

- 52. The HMC SNCO experiences several challenges in its operations. Its main challenge is the lack of automation and mobile equipment: it carries out most of its sampling manually. The HMC SNCO is dependent on international projects to build its capacity. It has worked with many international partners, including the EU's Water Initiative Plus (EUWI+) on water monitoring and the United Nations Development Programme on air quality monitoring. As a result of such international projects, the central Yerevan laboratory has enhanced its capacity for water analysis. However, the Center's capacity for monitoring different environmental media is not balanced. For example, it has more monitoring capacity for water than other environmental media.
- 53. Armenia should prioritise the updating of capabilities and equipment of both laboratories to ensure effective environmental compliance monitoring, including automation of sampling and ensuring mobile sampling capacity. Alternatively, Armenia might consider outsourcing some monitoring activities of these two laboratories to the private sector.
- 54. There could be room for more structured co-operation between the EPMIB's Division of Laboratory Examination and the HMC SNCO. They could reinforce each other, perhaps around water monitoring. There is no framework for co-operation between these two bodies although HMC SNCO must inform the EPMIB of alerts about violations, sometimes helps with analysis and provides samples upon request. The HMC SNCO has noted it has capacity to increase co-operation with the EPMIB's laboratory should there be political will to do so.

Self-reporting by companies

- 55. Effective self-reporting can be useful considering the EPMIB lacks resources to conduct all inspections. According to the EPMIB, companies are required to provide quarterly reports and face administrative penalties if they submit such reports late.
- 56. However, there is a lack of publicly available information on self-reporting in Armenia. The effectiveness of self-reporting is not clear and should be studied further. For example, it would be useful to know how many companies submit such reports and how these reports are verified. At the same time, a draft law is under consideration for reducing the reporting frequency for smaller polluters.

Independent monitoring by the public and NGOs

- 57. A variety of stakeholders can file complaints with the EPMIB. It received and processed 1 228 complaints in 2019, which included alerts from state law enforcement bodies, individuals, the Prime Minister of Armenia and the mass media.
- 58. Stakeholders can report violations of environmental laws to the EPMIB using a variety of methods, including written applications, hotlines and the official Facebook page of the EPMIB (EPMIB, 2020_[28]). Some NGOs pointed out the usefulness of social media for submitting complaints and especially liked the possibility of tagging relevant bodies when doing so. They emphasised that social media provides a channel for alerts in regard to subjects that do not have another platform for doing so, such as national parks.
- 59. The EPMIB investigates alerts received for environmental breaches and then responds. According to NGOs interviewed, the EPMIB has previously been more responsive to urgent unsubstantiated alerts. The EPMIB should have a mechanism for immediate responses that reflects the nature of the alert. Such alerts could be an environmental incident, criminal behaviour or observed non-compliance that may warrant an ad hoc site visit.

- 60. As it handles environmental complaints manually, the EPMIB considers that it has no effective system for keeping track of their status. It will benefit from establishing a system for managing such complaints, in an electronic format if possible, to ensure they are treated in a timely manner. The system could include the status of each complaint and the response provided.
- 61. Some NGOs in Armenia monitor environmental compliance independently. For example, the EcoLur Informational NGO carries out public monitoring of implementation of environmental laws. It works with experts in a variety of sectors, conducts interviews with the general population and publishes studies on its website. It has carried out several studies on public perception of the social impact of several mines within the framework of the Extractive Industries Transparency Initiative. It has also conducted a social study of an impact zone of the Armenian Nuclear Plant, as well as studies on water and on small hydropower plants. It undertook community visits in the framework of the "European Neighbourhood and Partnership Instrument (ENPI) Forest Law Enforcement and Governance (FLEG) II Programme, Training of Journalists and Media Tour". It would be interesting to find out to what extent the government of Armenia and the EPMIB consider these studies. Greater use by the EPMIB of this work could help it address some of its capacity gaps.

The environmental compliance enforcement regime

Use of a pyramid of penalties for non-compliance with environmental regulations

- 62. The Environmental Protection and Mining Inspection Body (EPMIB) uses a variety of response mechanisms along the "compliance enforcement pyramid" (Figure 4.1) to respond to environmental non-compliance. They comprise warnings, fines, proposals to the authorised body to revoke permits and referrals to the police of cases of a criminal nature.
- 63. According to its annual 2019 report, the EPMIB issued 8 warnings, 914 fines and 51 mandatory enforcement orders for violations of Armenia's legislation in the fields of nature protection and subsoil that year. The Ministry of Environment is involved in case of permit revocation. The EPMIB calculates the damage caused to the environment, and informs the police of cases with high environmental damage. It refers substantiated criminal cases along with a justifying note to the police.

Figure 4.1. Compliance enforcement pyramid



- 64. According to the EPMIB, it provides a warning and instructions to economic operators in regard to rectifying their mistakes in case of insignificant harm to the environment. The Ministry of Environment can give mandatory due notice of permit revocations and holds a hearing, to which it invites the operator. However, the EPMIB mentioned it does not have to issue a warning before proceeding to other types of sanctions. If this is the case, to reduce its administrative burden, the EPMIB might consider making warnings the lowest most appropriate tool in its responses to non-compliance before proceeding to stricter measures.
- 65. Although the EPMIB has a variety of responses to non-compliance, it lacks a comprehensive and coherent enforcement policy document. Such a document could guide assessment of offences and application of sanctions (according to the gravity of the offence and aggravating/mitigating factors such as previous compliance, steps taken to mitigate damage and the polluter's ability to pay) and a standard

process for dealing with non-compliance. Such a policy document could also outline certain principles with regard to follow-up on offences through administrative instruments or by criminal law. An enforcement policy document adds to the transparency and predictability of the work of an inspectorate and its staff, as well as to an equitable treatment of offenders in comparable cases. Indeed, some non-governmental organisations (NGOs) in Armenia have expressed concern that the absence of clear guidance on punishment sometimes results in inconsistently applied penalties. Therefore, it is recommended the EPMIB adopt such an enforcement policy document and train its inspectors on using it.

Appeals

66. There is a four-tier appeals process against penalties for non-compliance. Appeals are first made to the Head of the EPMIB, and then the administrative court, the administrative court of appeal and the court of cassation. In 2020, of 20 appeals to the Head of the EPMIB, 11 were solved in favour of the claimant. Some stakeholders have raised concerns about resorting to courts, describing the procedure as cumbersome. Therefore, it would be useful to examine further how appeals work in practice and ways to make the appeal procedure more efficient.

Environmental payments, including administrative fines (monetary fees for non-compliance)

67. The system of environmental payments in Armenia has been in effect since 1993 (Government of Armenia, 2012_[5]). According to information received from the Ministry of Environment and the Environmental Protection and Mining Inspection Body of Armenia, several documents govern environmental payments in Armenia, with resource-specific procedures (Table 4.1).

Table 4.1. The main documents governing environmental payments in Armenia

Document	Year	Description
Tax Code of Armenia	2016	This document compiles the key regulations governing environmental taxation and provides taxation rates for:
Law on Compensation Rates for Damage Caused as a Result of Environmental Infringements to Flora and Fauna	2005	This law defines the rates of damage compensation for environmental infringements in regard to the flora and fauna, as well as the calculation and the collection procedure for these payments.
Government Decree "Procedure for Assessing the Impact of Economic Activity on the Atmosphere"	2005	This document governs the assessment of impact caused by economic activities on the atmosphere. It includes general provisions and an impact assessment methodology.

Government Decree "Procedure for Assessing the Impact of Economic Activity on Land Resources"	2005	This document sets out the procedure and the methodology for assessing the impact caused by economic activities on land resources.
Government Decree "Procedure for Assessing the Impact of Economic Activity on Water Resources"	2003	This document sets out the procedure for assessing the impact of economic activities on water resources.

Source: Information shared by the Ministry of Environment of Armenia and the Environmental Protection and Mining Inspection Body of Armenia (EPMIB); (Government of Armenia, 2016[29]); (Government of Armenia, 2005[30]); (Government of Armenia, 2005[31]); (Government of Armenia, 2005[32]); (Government of Armenia, 2005[33]).

- 68. The government of Armenia imposes multiple payment rates for exceeding permitted pollution thresholds, with the rate proportionate to the level of exceedance. For example, air pollution taxes increase five-fold if the level is exceeded up to and including five times, and ten-fold if the level is exceeded by more than five times (Government of Armenia, 2016_[29]). The rates increase 25-fold for exceeding allowed volumes in cases where no permit for emissions is required or where volumes of permissible emissions are not specified in permits (Government of Armenia, 2016_[29]). For the emission of harmful substances and/or compounds into water resources in Armenia, taxation rates will be three times higher when they exceed the permissible limit (Government of Armenia, 2016_[29]). According to the Ministry of Environment, the fine amount reflects the history of the offender as it increases for repeat offences.
- 69. Media-specific decrees, also listed in Table 4.1, govern the assessment of impact of economic activities on different environmental media (atmosphere, land, water, and fauna and flora). The EPMIB uses information collected from observation points, carries out control, identifies environmental damage with the results obtained and uses software to calculate fines that it will impose for the damage.
- 70. Although Armenia applies the "polluter pays" principle, there are several concerns about the effectiveness of the system of environmental payments, including payments for non-compliance with environmental regulations. The main concerns include a large number of taxed pollutants, emissions of which in many cases cannot be monitored; and the low level of environmental fees that do not correspond to the genuine economic value of resources and damage inflicted. Such low fees have an insufficient impact on the behaviour of economic operators in the country (Government of Armenia, 2012_[5]).
- 71. During interviews, some disagreed that environmental payments are too low. They pointed out low fees are mostly associated with air pollution fines. Stakeholders in Armenia have noted the country is increasing its payments for environmental non-compliance to remove the economic benefit of non-compliance for economic entities. The Ministry of Environment has suggested it could further improve the quality of legislation determining harm to the environment. It is considering revising its legislation on environmental damages and losses in the framework of the CEPA.
- 72. In view of this, it seems relevant that Armenia evaluate its system of environmental payments to identify areas for improvement. Some relevant questions to consider during such an evaluation are the following:
 - Are the tax and fine amounts adequate to have a credible dissuasive effect on economic entities?
 - Are the formulas for calculation of fines sufficiently transparent, fair and realistic?
- 73. It would be important to ensure that fines for environmental non-compliance are index-linked to inflation. In addition, interviewed NGOs have expressed a wish for more transparency in regard to use of collected funds on environmental activities.

Environmental liability

74. Mining companies in Armenia must make an advance payment for site restoration prior to starting their activities. Moreover, they must carry out restoration works after completing their activities according to a pre-approved project. However, several NGOs have mentioned the lack of an environmental liability regime for mining waste and damage to biodiversity. There is also a lack of legal framework for an environmental insurance system in Armenia (Government of Armenia, 2012_[5]). Therefore, there is a need to study in more detail the effectiveness of environmental liability; challenges to it in Armenia; and ways to improve it, including the extent to which remediation is used.

5 The use of compliance promotion instruments

- 75. The Ministry of Environment and the Environmental Protection and Mining Inspection Body (EPMIB) of Armenia employ several methods to increase awareness about compliance with environmental regulations, including through online platforms. In addition, the EPMIB carries out preventive measures.
- 76. Both the ministry and the EPMIB publish relevant information on their websites. The ministry uploads information such as laws and procedures. The EPMIB publishes documents such as annual reports, activity and inspection plans, inspections conducted and fines imposed, relevant legislation and budget allocations. The EPMIB also has a Facebook page where it raises awareness daily and/or weekly about legislation, regulations, procedures and its work.
- 77. According to the 2014 Law on Inspection Bodies, the EPMIB must develop an annual plan of preventive and awareness-raising measures. Its 2020 Annual Awareness and Action Plan had nine actions that included press conferences and briefings based on risk analysis. The EPMIB has ambitious plans to step up its awareness-raising activities through publishing on line additional information on air pollution, water contamination and polluter liability; developing and sharing with economic entities guidelines on control of the environment in the subsoil sector; and installing information boards on fines in recreational areas such as national parks. In early 2021, the ministry co-operated with the EPMIB on a video in the framework of the "Social Environmental Advertisement: Let's Listen to Lake Sevan" programme with support of the Japan International Cooperation Agency. The promotional video will be shown on social networks and local TV channels. The ministry and the EPMIB will organise preventive and awareness-raising events on the topic "Lake Sevan Wants to Live". Otherwise, the ministry does not raise much awareness aimed at environmental compliance assurance.
- 78. The Law on Inspection Bodies states the EPMIB is responsible for providing free advice and other methodological assistance to economic entities. This aims to help these entities understand legislative requirements, and how to comply with them (Government of Armenia, 2014_[34]). The EPMIB has mentioned that it meets with economic operators, non-governmental organisations (NGOs) and economic unions to inform them of their rights and responsibilities and respond to their questions. However, there is no publicly available information about the frequency or results of such meetings. Furthermore, there is no evidence of the ministry conducting such training.
- 79. Armenia needs to further increase awareness-raising and training activities aimed at promoting environmental compliance. According to OECD interviews, awareness of regulations, compliance assurance instruments and institutional responsibilities for environmental compliance assurance in the country is low. If there is a lack of resources, promotion could focus on higher-risk activities such as hazardous materials.
- 80. NGOs interviewed noted that information available on line is generic. Therefore, the ministry and the EPMIB could provide more details on line, especially information that targets the needs of regulated entities. It could include, for example, permit applications, permits, results of inspections and consultations, and the compliance score of economic entities. In addition, they could publish on line information that defines and describes inspections, action taken in case of non-compliance and the appeals process. Metrics on the use of online information could help analyse its effectiveness.

- 81. Training activities should continue, and the organisation of seminars could be increased to further promote compliance with environmental regulations, either general or sector-specific. Information on consultations and training by the EPMIB should be available on its website.
- 82. Armenia uses financial instruments to promote adoption of green practices; two examples are described in Box 5.1. It would be helpful to conduct a wider analysis of how Armenia promotes green practices, including financial incentives. Such an analysis could help the country achieve its environmental compliance goals.

Box 5.1. Two financial instruments to help businesses adopt green technologies

- The Green Economy Financing Facility (GEFF) provides finance, advice and incentives to help businesses become more competitive by investing in high-performance technologies and adopting energy efficiency practices. The GEFF supports Armenia's green economy transition with USD 20 million channelled through participating local financial institutions.
- Within the framework of the project "Energy Efficiency for SMEs", Araratbank offers green loans to businesses.

Source: Ministry of Environment of Armenia.

6 Conclusions and the way forward

- 83. Armenia has numerous laws to address its environmental concerns; an independent environmental inspectorate for monitoring environmental compliance; and preventive and control actions, including risk-based inspections that have been recently introduced. It uses a variety of tools and channels to monitor environmental compliance; it has several elements of an environmental enforcement pyramid for penalties for non-compliance; and it raises awareness and conducts some training activities. These are all positive developments of an environmental assurance system in a country that relies on mining and faces desertification risks. Armenia is aiming to strengthen its environmental compliance assurance through its implementation of the Comprehensive and Enhanced Partnership Agreement with the European Union and ongoing revisions of its legislation.
- 84. Armenia will benefit from examining closely some aspects of its compliance assurance system and mitigating several gaps to make it more effective. Table 6.1 below summarises the positive characteristics of Armenia's compliance assurance system, identifies shortcomings at various stages of the compliance assurance chain; and provides recommendations.
- 85. Some concerns are systemic, such as lack of co-ordination among stakeholders, inefficiencies with information management, and lack of capacity, skills and technology. As the Environmental Protection and Mining Inspection Body (EPMIB) is under-staffed and lacks resources, proper prioritisation and ways to increase efficiencies will continue to be important. In addition, Armenia will benefit from taking a more preventive rather than a punitive approach to environmental compliance assurance. Such an approach would focus more on effective communication, outreach and training with the public, non-governmental organisations (NGOs) and the private sector using a wider array of tools.
- 86. It would be useful to look into how Armenia's environmental compliance assurance activities deliver against environmental pressures such as droughts, potential desertification and contamination by mining. Armenia's environmental compliance assurance system should help the country deliver results towards its environmental priorities. To this end, co-operation between the government and the EPMIB are important. The EPMIB should base its goals and objectives on its contribution to achieving environmental goals set by the government.
- 87. Many issues with the compliance assurance system in Armenia are comparable to those in other countries. Consequently, Armenia should continue to engage with relevant international organisations and networks working on environmental compliance assurance, such as the European Union Network for the Implementation and Enforcement of Environmental Law. In so doing, it could leverage their perspectives and expertise.
- 88. The EU4Environment Action will continue to seek ways to support the environmental compliance assurance system in Armenia. It will pursue this support both through its activities and by facilitating the Eastern Partner countries' engagement with relevant international networks.

Table 6.1. Summary of positive characteristics, gaps and recommendations for improving the environmental compliance assurance system in Armenia

CAS SYSTEM COMPONENT	POSITIVE CHARACTERISTICS, GAPS AND RECOMMENDATIONS
LEGISLATIVE AND PERMITTING	POSITIVE CHARACTERISTICS
FRAMEWORK	Armenia has in place the main legislation for environmental protection.
	There is evidence of public consultation on new environmental legislation.
	Armenia has ratified the Aarhus Convention and has translated the UNECE Maastricht Recommendation
	on Promoting Effective Public Participation in Decision-Making in Environmental Matters.
	 Transparency of Armenia's mining regulation has improved as a result of participation in the Extractive Industries Transparency Initiative.
	 It is possible to apply for a permit to two local offices of the Ministry of Environment.
	Armenia is digitising environmental permits and the permit application process.
	GAPS
	• There are concerns about the quality of environmental regulations, in particular about ambiguity, a lack
	of clarity and insufficient incentives to encourage companies to comply.
	Permitting uses a single-media approach.
	Permit issuance for air pollution does not consider toxicity of pollution.
	Permit application results are often delayed, according to anecdotal evidence.
	There is no digital database of permits and no digital permit application procedure.
	 There are concerns about the extent to which the Ministry of Environment considers the opinion of interested parties such as non-governmental organisations (NGOs) in policy making and about a lack of platforms for them to voice their opinions to the policy-making authorities.
	RECOMMENDATIONS
	Short-term:
	Review environmental regulations in Armenia to check if they are clear, non-redundant and have enough incentives to encourage companies to comply.
	• Ensure a streamlined procedure and smooth inter-ministerial co-operation on permit applications for timely permit delivery.
	 Finalise the digitisation of environmental permits and the permit application procedure.
	 Review tools for considering the opinions of NGOs, the private sector and the public effectively in environmental policy making, and for communicating to them on the results of public consultations.
	 Medium-term: Move towards a multi-media approach to permitting.
	 Move towards a multi-media approach to permitting. Examine how toxicity can be considered in permit requirements, in addition to emission volumes.
	 Consider using a wider variety of tools for regular dialogue between the government, NGOs and the
	private sector on environmental policies and permits.
INSTITUTIONAL FRAMEWORK	POSITIVE CHARACTERISTICS
	 The Environmental Protection and Mining Inspection Body (EPMIB) is in place and is separate from environmental policy-making activities.
	 Regional branches corresponding to territorial divisions support the EPMIB.
	The EPMIB receives a yearly evaluation.
	The EPMIB is financed from the state budget of Armenia.
	Inspectors undergo regular training and evaluation.
	 The EPMIB participates in capacity building activities with local stakeholders and external partners. The EPMIB plans to put in place an electronic control system in 2022.

CAS SYSTEM COMPONENT POSITIVE CHARACTERISTICS, GAPS AND RECOMMENDATIONS **GAPS** Information about the total amount of permitted entities that the EPMIB supervises is not available, and it is not clear whether the EPMIB has a database of all permitted entities. · Co-ordination between the Ministry of Environment and the EPMIB is ad hoc and is seen as insufficient by some stakeholders. · There is some lack of clarity in the compliance assurance functions of the EPMIB and the Ministry of Environment. The EPMIB's budget appears to be low compared to the overall budget of the Ministry of Environment. • There are no objective criteria for evaluating the EPMIB's performance. • The EPMIB is experiencing issues with human resources in terms of both quantity and available skills. • The EPMIB conducts many of its processes manually and lacks automation. RECOMMENDATIONS Short-term: Ensure the EPMIB has a database of all permitted entities. · Adopt a programme approach to inspector training by identifying skills gaps, designing a curriculum and then carrying out training. · Establish more regular co-ordination between the Ministry of Environment and the EPMIB, ensuring regular sharing of information, the EPMIB's participation in reviewing important environmental legislation and new permits. Clarify the division of responsibilities between the Ministry of Environment and the EPMIB to the public. • Establish objective Key Performance Indicators for the EPMIB's evaluation. Medium-term: • Examine whether the EPMIB's budget is sufficient given the amount of entities it oversees. • Consider digital tools for information management at the EPMIB (e.g. permits, inspections, environmental complaints). **MONITORING POSITIVE CHARACTERISTICS** by the public and NGOs.

- · Armenia uses various tools for monitoring compliance with environmental regulations, including planned and ad hoc inspections, self-reporting by companies, ambient monitoring and independent monitoring
- Planned inspections are based on risk and are supported by a risk assessment methodology.
- The EPMIB is responsible for maintaining a database on the risk assessment of all economic entities.
- The EPMIB has an inspection guidance document.
- The EPMIB and the Ministry of Environment both have monitoring laboratories.
- · Companies are required to provide quarterly and annual reports and face administrative penalties if they submit such reports late.
- A draft law is under consideration for reducing the reporting frequency for smaller polluters.
- The public can use various channels for environmental alerts, including letters, hotlines and social media.
- Some NGOs conduct independent environmental studies.

GAPS

- The risk criteria methodology does not seem to leverage the permitting process for risk assessment information or allow enough flexibility of risk categories.
- The number of yearly planned inspections looks low compared to the amount of permitted entities.
- The EPMIB is unable to carry out all inspections due to insufficient resources.
- The EPMIB laboratory has outdated technology and lacks quick response capacity.
- The laboratory of the Hydrometeorology and Monitoring Center State Non-Commercial Organization (HMC SNCO) under the Ministry of Environment lacks automation and mobile equipment, has unbalanced monitoring capacity for different environmental media and is not accredited.
- There is a lack of publicly available information on self-reporting in Armenia.
- The response mechanism for urgent environmental alerts used by the EPMIB is not clear and is less effective than before, according to some stakeholders.
- There is no inspector rotation.

CAS SYSTEM COMPONENT	POSITIVE CHARACTERISTICS, GAPS AND RECOMMENDATIONS
	RECOMMENDATIONS
	 Short-term Finalise the accreditation of the HMC SNCO laboratory under the Ministry of Environment. Ensure the EPMIB has a clear and effective response mechanism for urgent environmental alerts. Examine the rationale for the number of planned yearly inspections while considering overall resources and inspectors' duties.
	Ensure the same inspectors do not routinely monitor the same sites.
	 Medium-term: Enhance and simplify the risk methodology by using the permitting process for determining risk, and including provisions for flexibility and updating of risk categories. Update the technology of the EPMIB laboratory and the HMC SNCO laboratory, including more automation and mobile equipment, and balance the capacity for monitoring different environmental media. Alternatively, consider outsourcing some monitoring to a private sector laboratory. Consider expanding co-operation between the HMC SNCO and the EPMIB laboratories. Examine how the Ministry of Environment and the EPMIB consider independent NGO studies on environmental issues.
	 Long-term: Expand self-monitoring by companies and consider sharing more information about it.
ENFORCEMENT	POSITIVE CHARACTERISTICS The EPMIB uses a variety of penalties for non-compliance with environmental regulations, including warnings, fines, proposals for permit revocations and referrals of criminal cases to the police. The EPMIB issues warnings and instructions to polluters in case of insignificant harm to the environment. The Ministry of Environment issues warnings about permit revocations and invites transgressors to hearings. Fine amounts imposed for exceeding pollution thresholds are proportionate to the level of exceedance and reflect the history of the offender. Media-specific decrees govern the assessment of impact caused by economic activities on environmental media. Armenia is planning to increase its fees for non-compliance to remove the economic benefit of non-compliance. There is an obligation for mining companies to remediate environmental damage caused. A four-tier appeals process against penalties for non-compliance is in place.
	 The EPMIB does not have a comprehensive enforcement policy document with guidance on assessing non-compliance and applying penalties, leading to inconsistent application of penalties. The EPMIB's use of warnings as a first response to insignificant harm to the environment is discretionary. There are concerns about the environmental payments regime, including a high number of taxed pollutants; low environmental fine rates, at least for some environmental media; and insufficient impact on behaviour of economic operators in the country. The quality of legislation determining harm to the environment could be further improved. There are views that the environmental liability regime is not effective for mining waste and damage to biodiversity. There is a lack of a legal framework for introducing an environmental insurance system. Some stakeholders have described the appeals procedure through courts as cumbersome. There is a lack of transparency in regard to the use of the collected environmental payments.

CAS SYSTEM COMPONENT POSITIVE CHARACTERISTICS, GAPS AND RECOMMENDATIONS RECOMMENDATIONS Short-term · Adopt a comprehensive enforcement policy document with guidance on assessing non-compliance, applying penalties and any follow-up, and train inspectors on using the policy document. · Consider establishing the use of warnings as the lowest most appropriate tool of the EPMIB against non-compliance for insignificant offences, with a subsequent escalation of penalties. · Evaluate the system of environmental payments, including fines for environmental non-compliance, to identify areas of improvement, including whether the fees are sufficient to remove the economic benefit of non-compliance and whether formulas used are transparent, fair and realistic. • Increase visibility and transparency in regard to the use of environmental payments. Medium-term: • Review the court appeals procedure and ways to improve it. • Enhance legislation determining harm to the environment. Review the environmental liability regime and impediments to an environmental insurance framework. COMPLIANCE PROMOTION **POSITIVE CHARACTERISTICS INSTRUMENTS** • The Ministry of Environment and the EPMIB publish relevant information on their websites. • The EPMIB's mandate includes awareness-raising measures and preventive measures such as the provision of free advice and other methodological assistance to economic entities. • The EPMIB prepares annual awareness-raising plans and has ambitious plans to step up its awareness-raising activities. • The Ministry of Environment and the EPMIB have filmed a video on the protection of Lake Sevan and will organise awareness-raising activities on the topic. . The EPMIB conducts meetings with economic operators, NGOs and economic unions to provide information **GAPS** • The level of public awareness of environmental regulations, penalties and institutional responsibilities in environmental compliance assurance appears to be low. · Information related to environmental compliance published on websites of the Ministry of Environment and the EPMIB is of a generic nature according to some stakeholders. • There is no public information available on environmental compliance training with interested stakeholders organised by the EPMIB. **RECOMMENDATIONS** Short-term: · Use metrics to analyse effectiveness of information published on line by the Ministry of Environment and • Increase the detail of information related to environmental compliance published on the websites of the Ministry of Environment and the EPMIB by taking the point of view of regulated entities. Step up awareness-raising activities to increase public awareness of environmental compliance. · Increase training activities on environmental compliance with regulated entities and publish information on such training on line. • Examine measures that promote the adoption of green practices among companies to promote their compliance.

Source: Author's own elaboration.

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Annex A. The main environmental compliance assurance legislation in Armenia

Document	Year	Description
Methodology and General Description of Criteria Determining Risks-Based Decree on the Risk Assessment Conducted by the Environmental Protection and Mining Inspection Body of Armenia	2019	This methodology provides an opportunity to analyse, evaluate and classify economic entities in Armenia into risk groups based on their impact on the environment. It defines risk, determines the percentage of yearly inspections to be conducted for each risk category, and describes the process and the system for evaluating risk. It also determines there should be a database of economic entities and their environmental impact.
Law on Inspection Bodies	2014	This law regulates the legal status of inspection bodies operating in Armenia. It identifies the principles of activity of inspection bodies, and includes provisions in regard to their powers, organisation, leadership such as the appointment and the duties of the head of an inspection body, and the Joint Appeals Commission for resolving complaints against an inspection body. It also establishes the risk-based principle by stating that inspection bodies direct resources to the areas and economic entities that are most at risk.
Subsoil Code	2011	This Code defines the principles and the procedure of subsoil use in Armenia. It regulates subsoil waste management, subsoil use and protection of the environment, ensuring safety and protection of legal rights of the state during subsoil use. The law states that a subsoil user must ensure the protection of the atmosphere, water resources, soil, fauna and flora; observe the environmental tax calculation procedure; observe the procedure of keeping and submitting environmental administrative statistics; and fulfil contractual obligations aimed at environmental protection. According to this law, subsoil users must pay an environmental tax, and an environmental fund should be created. It obligates subsoil users to carry out environmental activities, including reclamation within project timeframes. The law also provides for inspections of implementation of waste management and recycling activities.
Forest Code	2005	This Code regulates sustainable management of forests and forest lands in Armenia, including their protection, restoration, afforestation and efficient use, as well as forest registration, monitoring and control. It states that forest owners, managers and forest users have the right to protect forests from unauthorised logging, grazing, pollution, litter and activities prohibited by law.
Law on Environmental Control	2005	This law regulates the organisation and oversight of implementation of environmental regulation in Armenia. It sets out the main issues and principles of environmental control in the country. It describes the state environmental inspection system; an inspection body's competences and obligations; features of an inspection body; implementation of environmental control, including the procedure for thematic special case inspections; the rights and obligations of inspected entities; and relations between the inspection body, the public administration and the local government.

Document	Year	Description
Water Code	2002	The Water Code of Armenia is the main document governing the management and conservation of water resources in Armenia. It contains the principle of integrated basin management; promotes supply-based rather than demand-based decisions with regard to water distribution; serves as a basis for the state water cadastre; and enforces information-based issuance of water use permits.
Law on Organization and Conduct of Inspections	2000	This law regulates inspections of activities of commercial and non-commercial organisations, institutions established thereby and individual entrepreneurs registered in Armenia, or of such organisations registered abroad but carrying out their activities in Armenia. It lists the bodies carrying out inspections, and describes the purpose and the procedure for carrying out inspections, the terms of inspection, the legal grounds for carrying out additional inspections, the summary of inspection results, the rights and obligations of inspectors, the rights and obligations of inspectors officials, the liability of inspectors, contesting the actions of inspectors, and compensation of losses incurred by the economic sector caused by unlawful actions of inspection bodies.
Law on Atmospheric Air Protection	1994	This law aims to regulate public relations in ensuring the purity of atmospheric air, and the reduction and prevention of harmful effects on atmospheric air. It sets out government authorities in the field of atmospheric air protection, includes a chapter on maximum permissible concentrations, pollution and emission standards, and describes the regulation of atmospheric pollutants, atmospheric air control, state control over atmospheric air protection, liability for violating atmospheric legislation, and compensation for damage caused by non-compliance with atmospheric legislation.
Code on Administrative Offenses	1985	This Code has a section on administrative offences and administrative responsibility, including rules for imposing a penalty for an administrative offence, mitigating and aggravating circumstances; a section on authorities that have the right to investigate administrative violations; a section on cases of administrative violations; and a section on the implementation of administrative decisions.

Source: (Galoyan, $2020_{[22]}$); (Government of Armenia, $2012_{[5]}$); (EPMIB, n.d.[35]); (Government of Armenia, $2019_{[24]}$); (Government of Armenia, $2014_{[34]}$); (Government of Armenia, $2005_{[37]}$); (Government of Armenia, $2005_{[37]}$); (Government of Armenia, $2000_{[38]}$); (Government of Armenia, $2000_{[3$

Annex B. Excerpts on the Environmental Liability Directive (ELD) and the Industrial Emissions Directive (IED) from the Annex to Chapter 3 on the Environment of the CEPA

Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, as amended

The following provisions of Directive 2004/35/EC shall apply:

adoption of national legislation and designation of competent authorities

Timetable: those provisions of Directive 2004/35/EC shall be implemented within 5 years of the entry into force of this Agreement.

 establishment of rules and procedures aimed at preventing and remedying of damage to the environment (water, land, protected species and natural habitats) based on the polluter-pays principle (Articles 5, 6 and 7, Annex II)

Timetable: those provisions of Directive 2004/35/EC shall be implemented within 8 years of the entry into force of this Agreement.

establishment of strict liability for dangerous occupational activities (Article 3(1) and Annex III)

Timetable: those provisions of Directive 2004/35/EC shall be implemented within 7 years of the entry into force of this Agreement.

• establishment of obligations for operators to take the necessary prevention and remediation measures, including liability for costs (Articles 5, 6, 7, 8, 9 and 10)

Timetable: those provisions of Directive 2004/35/EC shall be implemented within 7 years of the entry into force of this Agreement.

 establishment of mechanisms for affected persons, including environmental NGOs, to request action by competent authorities in the case of environmental damage, including independent review (Articles 12 and 13)

Timetable: those provisions of Directive 2004/35/EC shall be implemented within 5 years of the entry into force of this Agreement.

Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 concerning industrial emissions (integrated pollution prevention and control)

The following provisions of that Directive shall apply:

adoption of national legislation and designation of competent authority/ies

Timetable: those provisions of Directive 2010/75/EU shall be implemented within 4 years of the entry into force of this Agreement.

- identification of installations that require a permit (Annex I)
- establishment of an integrated permit system (Articles 4 to 6, 12, 21 and 24, and Annex IV)
- establishment of a compliance monitoring mechanism (Articles 8, 14(I)(d) and 23(1))

Timetable: those provisions of Directive 2010/75/EU shall be implemented within 6 years of the entry into force of this Agreement.

- implementation of best available techniques (BAT) taking into account the BAT conclusions of the Best Available Techniques Reference Documents (Articles 14(3) to (6) and 15(2) to (4))
- establishment of emission limit values for combustion plants (Article 30 and Annex V)
- preparation of programmes to reduce total annual emissions from existing plants (optional to setting emission limit values for existing plants) (Article 32)

Timetable: those provisions of Directive 2010/75/EU shall be implemented within 6 years of the entry into force of this Agreement for new installations and within 13 years of the entry into force of this Agreement for existing installations.

Annex C. International environmental agreements to which Armenia is party

- 1. The Convention on Wetlands of International Importance especially as Waterfowl Habitat
- 2. The Convention concerning the Protection of the World Cultural and Natural Heritage
- 3. The UN Convention on Biological Diversity
- 4. The UN Framework Convention on Climate Change
- 5. The UN Convention to Combat Desertification
- 6. The Vienna Convention for the Protection of the Ozone Layer
- 7. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
- 8. The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemical and Pesticides in International Trade
- 9. The Stockholm Convention on Persistent Organic Pollutants
- 10. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- 11. The Convention on the Conservation of Migratory Species of Wild Animals
- 12. The Minamata Convention on Mercury
- 13. The UNECE Convention on Long-range Transboundary Air Pollution
- 14. The UNECE Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention)
- 15. The UNECE Convention on Transboundary Effects of Industrial Accidents
- 16. The UNECE Convention on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters (Aarhus Convention)
- 17. The UNECE Convention on Protection and Use of Transboundary Watercourses and International Lakes
- 18. The Convention on the Prohibition of Military or any Other Hostile Use of Environmental Modification Techniques (ENMOD)
- 19. The European Landscape Convention
- 20. The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) (Ministry of Environment of Armenia, n.d._[41]).





The environmental compliance assurance system in Armenia: Current situation and recommendations

Ensuring compliance with environmental regulations is key for countries to achieve their environmental goals and reduce pollution.

An effective environmental compliance assurance system (CAS) comprises good-quality environmental regulations and permits; an adequate institutional arrangement, including an environmental inspectorate; robust monitoring of compliance; functional enforcement action and proactive promotion of voluntary compliance.

The goal of the document is to help Armenia's environmental authorities prioritise and plan activities aimed at strengthening environmental compliance. It describes the various components of Armenia's CAS, identifies their strengths and weaknesses, and provides recommendations for further improvement.

This report is part of a series of environmental CAS country reviews undertaken within the EU-funded EU4Environment programme that promotes a green economy and environmental improvement in the EU's Eastern Partner countries.

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