




Environmental crimes are overlooked in global enforcement: an analysis of Interpol Red Notices

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Abstract Tackling environmental crime is an international priority, as stated by many individual nations and by multinational organizations such as Europol. Quantifiable evidence to highlight efforts to address environmental crimes, however, remains scant. We use Interpol Red Notices, a global enforcement tool used to apprehend criminals, including environmental criminals, to examine how environmental crime is represented in this database. Notwithstanding the fact that these Notices have evidenced utility in apprehending environmental criminals, we find low application of this tool in apprehension of these criminals, with only 21 Red Notices of a sample of 4,464 (of the 7,010 active Notices) published as of 3 December 2023 being categorized as for environmental crimes. We argue this may indicate gaps or weaknesses in environmental enforcement pathways, and suggest that barriers to use of global enforcement tools should be addressed.

Keywords Environmental crime, environmental law enforcement, Interpol, Red Notice, wildlife crime

Addressing environmental crime is a priority for many nations given its social, health and economic impacts (UNEP, 2017). Environmental crime is frequently cited as one of the largest criminal activities globally (Nelleman et al., 2016; Interpol, 2023), ranking among the top five in terms of value. These crimes are defined as illegal acts directly harming the environment (Banks et al., 2008), and include pollution, illegal logging and wildlife trafficking. Given the transnational nature of many of these crimes, including wildlife trafficking across borders and pollution occurring across national limits (Elliott, 2012), international collaboration is fundamental in both apprehending environmental criminals and in understanding the severity of the crimes committed.

The assertion that environmental crime is under-prioritized compared with other types of crime is well-established, with international enforcement agencies such as Europol (Environmental Crime Network, 2015) indicating low global prioritization as an issue. However, evidence supporting this claim and illuminating the scale at which this under-prioritization is occurring is sparse. We

use Interpol Red Notices to explore the prevalence of environmental crime in this global enforcement tool, shedding light on if and how such databases are being used to tackle environmental crime.

Interpol is the world's largest police organization, providing its 196 member nations with a platform for enforcement officers to cooperate. Their Global Wildlife Enforcement team supports member countries to disrupt and deter environmental crime through capacity building, collaboration and data sharing. Data sharing is key to disrupting environmental crime, as Interpol highlights that environmental criminals actively exploit lack of cross-border communication (Interpol, 2018). This team often uses Notices, including Red Notices, to locate wanted individuals. Notices are submitted by a member country and act as international requests for cooperation. Interpol listed the objective of enhancing the use of Interpol Notices in its Environmental Security Strategic Plan (Interpol, undated), acknowledging the potential utility of this tool in tackling environmental crime.

Red Notices used for intelligence sharing make a tangible contribution to suspect apprehension (Nellemann et al., 2016). For example, a Red Notice has led to a suspect being extradited from Tanzania to Botswana in 2017 for ivory smuggling (Interpol, 2018), and Malaysia's issuance of a Red Notice to tackle illegal turtle trade resulted in the arrest of a target in India (Interpol, 2018). In these examples, Interpol resources proved useful in cross-country coordination and resourcing support, showing the potential of this tool in tackling environmental crime.

Here, we explore the representation of environmental crime in Interpol Red Notices (Interpol, 2024) by categorizing them based on the International Classification of Crime for Statistical Purposes (UNODC, 2015). As of 3 December 2023, there were 7,010 active Notices. From these, we categorized all Notices for countries with > 3 and < 1,000 Notices, and subsampled countries with > 1,000 Red Notices. For the latter, sample size was calculated with a 99% confidence level and 3% margin of error; the resulting subsample size was attained using random sampling of Notices from the respective countries.

We found only 21 Red Notices that were issued for cases of environmental crime, making this the least represented category, accounting for just 2% of Notices across all countries sampled (Fig. 1). This low number suggests that environmental crime is not being prioritized in Red Notice issuance despite the stated priorities. Even white-collar crime accounted for a substantially higher proportion of

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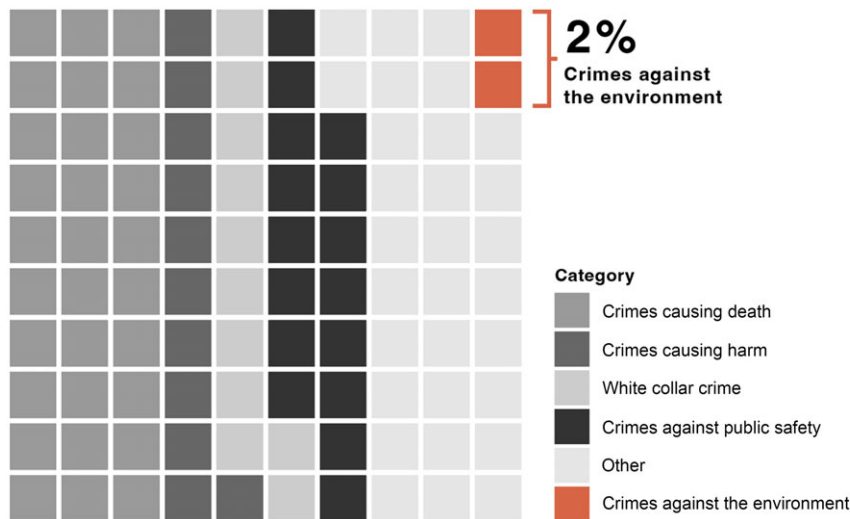


FIG. 1 Average overall per cent of each crime category (UNODC, 2015) in the 4,464 Interpol Red Notices published as of 3 December 2023. Categories are: acts causing or intending to cause death; acts leading to harm or intending to cause harm to the person; white collar crimes (fraud, deception or corruption); acts against public safety and state security; acts against the natural environment. Categories with < 10% representation are grouped as other, which includes injurious acts of a sexual nature, acts against property involving violence or threat against a person, acts against property only, acts involving controlled psychoactive substances or other drugs, acts against public order, authority and provisions of the state, and other criminal acts not otherwise categorized.

Notices (11%). We also noted underutilization of this tool by member countries; only 72 member countries (37%) are included in Fig. 1 as countries with ≥ 4 Red Notices for environmental crimes at the time of data collection.

Themes in the 21 Notices relating to environmental crime included wildlife trade and timber extraction. However, although environmental crime is broad, we did not record any Notices for transnational illegal extraction in marine environments or habitat degradation. Further investigation into which countries are not using this tool may provide insights into why Notices are not being used for such crimes.

Compared to other types of crime, the addressing of environmental crime appears to be less well resourced and sentencing more lenient. For example, environmental criminals in the USA received more lenient sentences than comparable non-environmental crimes (Cochran et al., 2018); low resourcing is a commonly cited issue in Europe (Wellsmith, 2011); conviction rates can be low (Marković, 2022); and low detection rates of environmental crimes affect deterrence (Wellsmith, 2011). Our investigation of the use of Red Notices has shown that this tool is not being used to its full potential to tackle environmental crime, highlighting that there are weaknesses in multiple places along the enforcement pathway. Low enforcement is a potential explanation for low use, but it is unclear why this tool is not better applied for environmental crime when it has proven utility, especially given the acknowledged threats posed by this area of crime.

For Italy and France, countries with high levels of environmental crime (Rabbi, 2024), we did not find any Red Notices for such crime, suggesting a detailed exploration of environmental crime in each country, and of enforcement approaches, may be needed to explore the reasons behind the low use of this tool. The large scale of environmental crime (Interpol, 2023) indicates that a

substantial number of offenders are likely to be active internationally. Comparing issuance of Interpol Red Notices with national statistics for wanted criminals could be informative for understanding whether environmental crime is dealt with more frequently through national enforcement mechanisms, whether other countries with high levels of environmental crime have more Red Notices for this crime type, and whether these countries perhaps have lower use of Interpol Notices overall, affecting the relative prevalence of environmental crime Notices. Our findings indicate the need for further research into environmental crime apprehension at the national and international level.

Recent policy changes, such as the UN General Assembly recognition of the right to a clean, healthy and sustainable environment (Bianchini et al., 2024), which seek to intertwine environmental factors with human rights, indicate a move towards improving environmental crime enforcement and potentially increasing use of enforcement tools such as Red Notices. At least 29 countries are adopting rights of nature initiatives into legal provisions, reflecting the improving legal pathways in the field of environmental crime apprehension (Alves et al., 2023).

Such policy changes provide greater opportunity to prosecute environmental criminals, and this may facilitate the increased use of enforcement tools such as Interpol Red Notices. However, the currently low use of Red Notices for environmental crime, despite Interpol's recognition of their value in tackling such offences, raises concerns about potential use of Red Notices even where the necessary policy mechanisms for legal apprehension are in place. The reasons behind the limited use remain unclear. To improve the utility of international enforcement through Interpol, we need a better understanding of the barriers to tackling environmental crime, for example in prosecution

(including legal limitations) or criminal apprehension (e.g. inefficient communication between agencies).

Cases of effective legislation being in place but not properly implemented are evident, showing that, although legal changes are needed, they can be ineffective without supportive enforcement pathways (Asghar et al., 2024; Aigbe & Enakireru, 2019). How the use of Red Notices for environmental crime is affected by such legislative changes may explain the currently low use. If levels of use remain low despite improved legal pathways to combat environmental crimes, other factors may be responsible for limited use, such as challenges related to interorganizational cooperation (Busuioc, 2015) and jurisdictional clarity. A better understanding of the challenges impeding use of Notices will be key for encouraging wider use and thus improve environmental outcomes.

In conclusion, the low use of Interpol's Red Notices as a tool for tackling environmental crime highlights a potential weakness in enforcement efforts that needs to be addressed if the growth of global organized crime is to be managed effectively. Understanding why Red Notices are seldom used for tackling environmental crime would not only strengthen global enforcement efforts but also highlight environmental crime as a priority on the global stage, aligning enforcement capacity with other international priorities.

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Conflicts of interest None.

Ethical standards No specific ethics approval was required. This research abided by the Oryx guidelines on ethical standards.

Data availability Interpol Red Notice data are available at [interpol.int/en/How-we-work/Notices/Red-Notices/View-Red-Notices](https://www.interpol.int/en/How-we-work/Notices/Red-Notices/View-Red-Notices).

References

- ALVÉS, F., COSTA, P.M., NOVELLI, L. & VIDAL, D.G. (2023) The rights of nature and the human right to nature: an overview of the European legal system and challenges for the ecological transition. *Frontiers in Environmental Science*, 11, 1175143.
- AIGBE, I. & ENAKIRERU, E. (2019) Enforcement of Environmental Laws in Nigeria. *International Journal of Comparative Law and Legal Philosophy*, 1, 44–54.
- ASGHAR, A., UMER, M. & AFZAL, A. (2024) Effective Implementation of Environmental Laws in Pakistan. *Qlantic Journal of Social Sciences and Humanities*, 5, 9–14.
- BANKS, B., DAVIES, C., GOSLING, J., NEWMAN, J., RICE, M., WADLEY, J. & WALRAVENS, F. (2008) *Environmental Crime: A Threat to Our Future*. Environment Investigation Agency, London, UK. [unodc.org/documents/NGO/EIA_Ecocrime_report_0908_final_draft_low.pdf](https://www.unodc.org/documents/NGO/EIA_Ecocrime_report_0908_final_draft_low.pdf) [accessed 16 September 2025].
- BIANCHINI, F., GAVIRA DÍAZ, P., HOLT, J., MARTINI, P., SARLIEVE, M. & STUART-SMITH, R. (2024) *Comment on OTP Environmental Crimes Policy*. Smith School, University of Oxford, Oxford, UK. smithschool.ox.ac.uk/sites/default/files/2024-03/20240316_Comment_on_OTP%20Environmental_Crimes_Policy_Sarlieve_et_al.pdf [accessed September 2025].
- BUSUIOC, E.M. (2015). Friend or Foe? Inter-Agency Cooperation, Organizational Reputation, and Turf. *Public Administration*, 94, 40–56.
- COCHRAN, J.C., LYNCH, M.J., TOMAN, E.L. & SHIELDS, R.T. (2018) Court sentencing patterns for environmental crimes: is there a 'green' gap in punishment? *Journal of Quantitative Criminology* 34, 37–66.
- ELLIOTT, L. (2012) Fighting transnational environmental crime. *Journal of International Affairs*, 66, 87–104.
- ENVIRONMENTAL CRIME NETWORK (2015) *EnviCrimeNet Intelligence Project on Environmental Crime. Report on Environmental Crime in Europe*. Environmental Crime Network, The Hague, The Netherlands. europol.europa.eu/cms/sites/default/files/documents/ipcc_report_on_environmental_crime_in_europe_o.pdf [accessed September 2025].
- INTERPOL (undated) *Environmental Security Strategic Plan 2017–2020*. Interpol General Secretariat, Lyon, France. [interpol.int/content/download/5094/file/Strategic%20Plan%202017-2020.pdf](https://www.interpol.int/content/download/5094/file/Strategic%20Plan%202017-2020.pdf) [accessed September 2025].
- INTERPOL (2018) *Global Wildlife Enforcement. Strengthening Law Enforcement Cooperation Against Wildlife Crime*. Interpol General Secretariat, Lyon, France. [interpol.int/content/download/5179/file/WEB_Wildlife%20ProspectusMarch2019.pdf](https://www.interpol.int/content/download/5179/file/WEB_Wildlife%20ProspectusMarch2019.pdf) [accessed September 2025].
- INTERPOL (2023) *Illegal wildlife trade has become one of the 'world's largest criminal activities'*. [interpol.int/en/News-and-Events/News/2023/Illegal-wildlife-trade-has-become-one-of-the-world-s-largest-criminal-activities](https://www.interpol.int/en/News-and-Events/News/2023/Illegal-wildlife-trade-has-become-one-of-the-world-s-largest-criminal-activities) [accessed 21 March 2025].
- INTERPOL (2024) *View Red Notices*. [interpol.int/en/How-we-work/Notices/Red-Notices/View-Red-Notices](https://www.interpol.int/en/How-we-work/Notices/Red-Notices/View-Red-Notices) [accessed 15 March 2024].
- MARKOVIĆ, I. (2022) Characteristics of environmental crimes as challenges for their detection and proving. *Thematic Conference Proceedings of International Significance*, 12. [eskup.kpu.edu.rs/dar/article/view/426](https://www.eskup.kpu.edu.rs/dar/article/view/426) [accessed 16 September 2025].
- NELLEMAN, C., HENRIKSEN, R., KREILHUBER, A., STEWART, D., KOTSOVOU, P., RAXTER, P. et al. (2016) *The Rise of Environmental Crime: A Growing Threat to Natural Resources Peace, Development and Security*. United Nations Environment Programme, Nairobi, Kenya. [unep.org/resources/report/rise-environmental-crime-growing-threat-natural-resources-peace-development-and](https://www.unep.org/resources/report/rise-environmental-crime-growing-threat-natural-resources-peace-development-and) [accessed September 2025].
- RABBI, M.F. (2024) Unveiling environmental crime trends and intensity in the EU countries through a sustainability lens. *European Journal on Criminal Policy and Research*, doi.org/10.1007/s10610-024-09607-8.
- UNEP (UNITED NATIONS ENVIRONMENT PROGRAMME) (2017) *Environmental Crime*. [unep.org/news-and-stories/story/environmental-crime](https://www.unep.org/news-and-stories/story/environmental-crime) [accessed 16 September 2025].
- UNODC (UNITED NATIONS OFFICE ON DRUGS AND CRIME) (2015) *International Classification of Crime for Statistical Purposes Version 1.0*. United Nations Office on Drugs and Crime, Vienna, Austria. [unodc.org/documents/data-and-analysis/statistics/crime/ICCS/ICCS_English_2016_web.pdf](https://www.unodc.org/documents/data-and-analysis/statistics/crime/ICCS/ICCS_English_2016_web.pdf) [accessed 16 September 2025].
- WELLSMITH, M. (2011) Wildlife crime: the problems of enforcement. *European Journal on Criminal Policy and Research*, 17, 125–148.