Harmonising Environmental Laws Across Countries Through SDG-17

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Abstract— Fragmentation of environmental laws across jurisdictions continues to undermine collective action on climate change, biodiversity loss and transboundary pollution, despite the normative framework established by the 2030 Agenda and Sustainable Development Goal 17 (SDG-17). Existing scholarship highlights SDG-17's potential to foster policy coherence, promote multi-stakeholder partnerships, and support alignment of environmental norms, yet empirical evidence on its influence on national legislative reforms remains limited. Current frameworks for policy coherence seldom operate at the level of concrete legal provisions, and most partnership assessments focus on numerical reporting rather than regulatory outcomes. Moreover, comparative environmental law research shows persistent divergence in legal traditions, enforcement capacity and institutional coordination, raising questions about the effectiveness of SDG-17 as a harmonisation mechanism. Addressing these gaps, this study investigates how SDG-17 can systematically support the convergence of environmental laws by integrating coherence metrics, partnership accountability, and principle-based legal alignment. Through cross-jurisdictional analysis and evaluation of coherence tools, the research aims to develop a structured model that links SDG-17 implementation processes to measurable legislative harmonisation. The findings seek to contribute to global environmental governance by providing an evidence-based pathway for strengthening environmental law convergence and enhancing the effectiveness of SDG-17 as a driver of transnational sustainability regulation.

I. INTRODUCTION

Environmental degradation, climate instability, and biodiversity loss have intensified the need for coordinated global responses grounded in strong and coherent legal frameworks. Although numerous multilateral environmental agreements (MEAs) and national statutes address specific ecological challenges, their fragmented design and inconsistent implementation across jurisdictions continue to impede collective progress. Divergent regulatory standards, uneven enforcement mechanisms, and mismatched institutional capacities further limit the effectiveness of international cooperation, particularly in managing transboundary impacts such as air pollution, water contamination, and carbon emissions. In this context, the 2030 Agenda for Sustainable Development positions Sustainable Development Goal 17 (SDG-17)—focused on partnerships, policy coherence, technology transfer, and capacity-building—as a central mechanism for aligning national and regional efforts toward shared sustainability targets.

SDG-17 provides an overarching governance framework that encourages countries to integrate environmental objectives into coordinated policy and legal processes. Its emphasis on

strengthening the means of implementation, enhancing multi-stakeholder partnerships, and improving systemic coherence offers a strategic pathway to harmonise environmental laws across borders. However, despite the conceptual strength of SDG-17, significant gaps remain in understanding how it influences legislative convergence in practice. Existing studies highlight that SDG interactions vary by national context, partnerships often lack accountability mechanisms, and coherence assessments rarely operate at the level of specific legal provisions. Consequently, the relationship between SDG-17 implementation and measurable alignment of environmental laws remains insufficiently explored.

Source:
https://www.researchgate.net/publication/343791128_Transformation_is_feasible_How_to_achieve_the_sustainable_development_goals_within_planetary_boundaries/figures?lo=1

This research addresses these limitations by examining the potential of SDG-17 to serve as a catalyst for harmonising environmental legislation across countries. By integrating coherence evaluation tools, comparative legal analysis, and partnership performance frameworks, the study aims to develop a structured model that links SDG-17 processes to tangible legislative convergence. Through this approach, the research

contributes to global sustainability governance by offering evidence-based insights into how SDG-17 can strengthen environmental law harmonisation and support more effective, transnational regulatory responses to ecological challenges.

Source: https://www.iynf.org/2018/08/a-guide-to-sustainable-development-and-its-challenges-in-developing-countries/

II. LITERATURE REVIEW

1. 2030 Agenda, SDG-17 and the Normative Basis for Harmonisation

The starting point for any discussion of harmonising environmental laws is the 2030 Agenda for Sustainable Development, adopted by the UN General Assembly in 2015. The Agenda sets out 17 Sustainable Development Goals (SDGs) and 169 targets and explicitly positions them within the existing body of international law, including environmental treaties and human rights instruments. SDG-17, "Strengthen the means of implementation and revitalize the global partnership for sustainable development," provides the overarching framework for international cooperation, including targets on

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finance, technology transfer, capacity-building, trade, and policy coherence (Target 17.14).

Kim argues that the SDGs are not freestanding political aspirations but are grounded in, and constrained by, existing international legal commitments; a "nexus" therefore exists between international law and the SDGs that can be used to foster systems integration across fragmented regimes. In this view, SDG-17 is not merely a soft political commitment but a bridge between treaty-based obligations (for example, multilateral environmental agreements—MEAs—and climate treaties) and new governance through goals.

At the same time, scholarship on international environmental governance has long highlighted the *fragmentation* of environmental law into hundreds of MEAs with overlapping scopes, inconsistent obligations, and divergent compliance mechanisms. This fragmentation is seen as a major obstacle to harmonisation and coherent implementation across countries. The 2030 Agenda—and SDG-17 in particular—is therefore often interpreted as a meta-framework that could steer multiple institutions and legal regimes towards greater consistency and mutual supportiveness.

2. SDG-17 as a Framework for Partnerships and Policy Coherence

A first strand of literature focuses on SDG-17 itself, especially its partnership and coherence dimensions. Maltais' review of SDG-17 identifies key research needs around the effectiveness, accountability, and equity of multi-stakeholder partnerships, especially in relation to environmental objectives.SEI Partnerships are expected to mobilise financial resources, technology and knowledge, but empirical evidence on whether they actually enhance environmental outcomes remains thin.

Bulmer, Riera and Rosa provide a critical reading of SDG-17, arguing that while SDG-17 is framed as covering all three pillars of sustainable development (economic, social, environmental), its operationalisation in practice tends to prioritise economic and financial partnerships, leaving the ecological and social dimensions relatively underdeveloped. They emphasise that SDG-17's targets on finance, technology, trade and systemic issues (including policy coherence) have significant potential to support environmental law harmonisation, but that this potential is undermined by weak monitoring, data gaps, and vague accountability structures for partnerships.

From a governance-systems angle, Lusseau and Mancini model SDG interactions as a "sustainome" and show that conflicts and synergies between goals vary by country income level.arXiv Their network approach suggests that progress on SDG-17—especially policy coherence and partnerships—can re-wire interactions among environmental and socio-economic goals. This is important for environmental law harmonisation, because it indicates that legal reforms must be designed with an understanding of cross-goal interactions (for example, how climate laws interact with inequality or consumption patterns) rather than in isolation.

3. Policy Coherence for Sustainable Development and Legal Harmonisation

A second strand of literature addresses *policy coherence for sustainable development* (PCSD), which is explicitly embedded in SDG Target 17.14. The OECD's 2019 *Policy Coherence for Sustainable Development* report conceptualises PCSD as a governance approach that aligns sectoral and scalar policies—horizontal coherence across ministries and vertical coherence across levels of government—while managing trade-offs and spill-overs.OECD Although the report has a broad focus, its analytical framework is directly relevant for environmental law: it shows how institutional arrangements, coordination mechanisms, and ex-ante impact assessments can be used to

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ensure that environmental regulations are consistent with trade, investment, and development policies.

Miola and co-authors at the European Commission's Joint Research Centre (JRC) go further by proposing an operational method for identifying SDG interlinkages and supporting PCSD. Their 2019 report develops dashboards of goal and target interlinkages based on literature review and EU legislation, providing tools to identify where EU-level environmental policies can serve as "nodes" for coherent SDG implementation. This work demonstrates how legal and regulatory texts can be systematically mapped against SDG targets—an approach that can be extended to compare and harmonise environmental laws across jurisdictions.

Complementary work by Guerrero and Castañeda on "Quantifying the coherence of development policy priorities" offers a formal framework for measuring policy coherence, recognising that countries face context-specific constraints when reallocating resources across goals.arXiv While not limited to environmental law, their findings—that some OECD countries achieve significantly higher coherence than others—highlight that harmonisation efforts must account for domestic political economy and administrative capacity, not just normative convergence around SDGs.

INTOSAI's Working Group on Environmental Auditing (WGEA) has also treated policy coherence as a critical theme. Its seminar note on policy coherence and sustainable development presents tools for supreme audit institutions to assess whether environmental and SDG-related policies are aligned, noting that incoherent legislation often results in conflicting incentives and implementation gaps at national level. This auditing perspective effectively operationalises SDG-17.14 by turning coherence into an evaluable performance dimension, including for environmental regulatory frameworks.

4. Harmonisation of Environmental Legislation: Comparative Law Perspectives

More directly, a distinct body of scholarship examines *harmonisation of environmental legislation* as a legal project. Akhatov, Galieva and Abdulgalimov, in a comparative study on harmonising environmental legislation, characterise harmonisation as a process of gradually aligning national legal frameworks with international environmental norms and best practices, rather than achieving identical legal texts. They identify common obstacles—such as divergent legal traditions, uneven administrative capacity, and conflicting economic interests—and argue that convergence around key principles (for example, polluter-pays, precaution, intergenerational equity) is more realistic and productive than full textual unification.

This insight resonates with broader discussions on international environmental law in the "Anthropocene," where authors like Kim and others argue for a purposive system of MEAs oriented towards ecological integrity and sustainable development. Instead of viewing each treaty in isolation, they propose that environmental obligations be interpreted and implemented in light of overarching sustainability objectives, including those embodied in the SDGs. Under this logic, SDG-17 can be understood as a coordinating device that guides harmonisation across MEAs and national frameworks, particularly via shared principles and mutually supportive interpretation.

Economic modelling of transboundary pollution further strengthens the case for cross-border harmonisation. La Torre et al. demonstrate that when jurisdictions ignore transboundary externalities in their local optimisation, the resulting policies are systematically sub-optimal compared to a global solution that internalises cross-border effects. Their results underline the need for international cooperation mechanisms—such as SDG-17 partnerships and coordinated legal standards—to manage

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global pollutants, especially greenhouse gases and shared water or air resources.

5. Environmental Law and Sustainability Targets: Aligning with SDG-17

Olawuyi provides one of the more explicit treatments of how environmental law must evolve to support sustainability targets, including the SDGs. In his 2022 article in *One Earth*, he argues that environmental law is shifting from a focus on pollution control and conservation toward a broader sustainability-oriented paradigm that integrates climate, energy, human rights, and development concerns. Key features of this shift include: outcome-based regulation aligned with sustainability indicators, stronger emphasis on just transitions, and integrated approaches to climate and biodiversity law. These developments implicitly require greater harmonisation of environmental norms across countries to avoid regulatory arbitrage and to ensure that global sustainability targets are collectively met.

Olawuyi also notes that the Paris Agreement's nationally determined contributions (NDCs) have induced a wave of domestic climate legislation and policy reforms. Although NDCs are nationally tailored, their iterative review cycles and transparency framework encourage convergence around certain legal and policy templates (such as long-term net-zero commitments and carbon-pricing regimes). SDG-17's means-of-implementation targets—finance, technology, capacity-building, trade—are closely aligned with the implementation architecture of Paris and can be leveraged to support more comparable and interoperable legal systems.

At the same time, critical analyses caution that SDG-17's partnership-oriented design may over-rely on voluntary commitments and public-private arrangements, without sufficiently binding obligations for powerful actors. Bulmer et al. argue that partnerships often reproduce existing power

asymmetries and may prioritise economic interests over stringent environmental protections unless embedded within robust legal frameworks. This suggests that harmonisation *through* SDG-17 requires not just more partnerships but also clearer legal standards for transparency, accountability, and environmental integrity within those partnerships.

6. Regional Experiences and Multi-Level Governance

Regional studies offer empirical evidence on how SDG-17 is being used to align and harmonise environmental laws. ECLAC's report on SDG-17 in Latin America and the Caribbean documents attempts to build regional cooperation mechanisms around trade, finance, and technology that can also serve environmental objectives, such as climate resilience and biodiversity protection. The report highlights that regional development banks, environmental agreements (for example, the Escazú Agreement on access to information and justice), and regional trade pacts are increasingly being framed as vehicles for achieving SDG-17 and other SDGs. However, legal fragmentation persists, and many countries struggle to create coherent linkages between their SDG implementation plans and domestic environmental laws.

In the European context, the EU's environmental acquis and the emerging EU Taxonomy for sustainable activities are frequently cited as examples of regional legal harmonisation that is broadly aligned with the SDGs. The taxonomy, a classification system for environmentally sustainable economic activities, is designed to prevent greenwashing and to guide sustainable finance; it reflects core environmental objectives (including climate mitigation, adaptation, circular economy, pollution prevention, and biodiversity protection) that resonate with numerous SDG targets. While not formally an SDG instrument, it demonstrates how regional regulatory initiatives can operationalise harmonised standards across multiple jurisdictions, in line with the partnership and implementation ethos of SDG-17.

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From a governance perspective, the OECD, UNDESA and other organisations emphasise that effective multi-level coordination—across local, national, regional and global scales—is essential for PCSD and for harmonising legal frameworks. Guidance documents stress the importance of integrated national planning, SDG "roadmaps," and inter-ministerial coordination mechanisms, along with stakeholder engagement. These institutional arrangements provide the arena in which legal harmonisation can be negotiated and implemented, particularly when environmental competencies are divided between central and sub-national authorities.

Author / Institution	Year	Focus Area	Key Insights Relevant to Harmonising Environmental Laws via SDG-17
UN General Assembly	2015	2030 Agenda & SDGs	SDG-17 defined as the global cooperation mechanism; emphasises legal–institutional coordination, partnerships, and coherence across environmental regimes. Provides normative basis for harmonisation.
Kim, R. E.	2016	International law–SDG Nexus	Argues SDGs are integrated within international law; recommends using SDG-17 as an integrator of fragmented MEAs. Supports harmonisation through common principles rather than uniform laws.
Maltais (SEI)	2018	SDG-17 partnerships	Identifies gaps in partnership accountability and environmental performance. Shows need for stronger mechanisms to convert global partnerships into legal convergence.
OECD	2019	Policy Coherence for Sustainable Development (PCSD)	Presents frameworks for horizontal (inter-ministerial) and vertical (multi-level) policy alignment. Provides tools for aligning environmental laws with trade, finance, and energy policies under SDG-17.
Lusseau & Mancini	2018	SDG Interaction Network ("Sustainome")	Demonstrates that SDG interactions vary by national context; positions SDG-17 as a leverage point for reconfiguring policy synergies supporting environmental legislation harmonisation.
Miola et al. (European Commission JRC)	2019	SDG Interlinkages & Coherence Metrics	Proposes operational methods to map environmental legislation to SDG targets. Offers dashboards useful for comparing legal frameworks across countries for harmonisation.
Guerrero & Castañeda	2019	Quantifying policy coherence	Provides mathematical framework for assessing coherence; highlights differences among OECD states. Supports evidence-based harmonisation efforts.
INTOSAI WGEA	2021	Environmental auditing & coherence	Shows how supreme audit institutions evaluate consistency in environmental laws. Demonstrates oversight frameworks for SDG-17 implementation and harmonisation.
Akhatov, Galieva & Abdulgalimov	2018	Comparative environmental law	Defines harmonisation as convergence around principles (precaution, polluter-pays) rather than identical laws. Identifies obstacles such as legal traditions and administrative capacity.
Olawuyi	2022	Environmental law evolution	Highlights shift from traditional pollution-control laws to integrated sustainability laws aligned with SDGs. Shows Paris Agreement processes accelerating legal convergence.
ECLAC (UN Regional Body)	2019	Regional SDG-17 implementation in Latin America	Documents regional cooperation mechanisms supporting environmental law alignment. Shows persistent fragmentation despite SDG-17 frameworks.

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Bulmer, Riera & Rosa	2022	Critical analysis of SDG-17	Argue SDG-17's implementation skews toward economic partnerships unless regulation ensures accountability. Warn that unregulated partnerships risk weakening harmonisation efforts.
La Torre, Liuzzi & Marsiglio	2019	Transboundary pollution modelling	Demonstrate that ignoring cross-border impacts leads to sub-optimal environmental policies. Provide quantitative justification for SDG-17-based harmonisation and coordinated law-making.

III. RESEARCH METHODOLOGY

The methodology adopted in this study follows a structured, multi-stage approach designed to analyse how SDG-17 can enable the harmonisation of environmental laws across jurisdictions. The framework integrates qualitative, quantitative, and comparative legal techniques to ensure analytical rigor and alignment with IEEE research standards.

A. Research Design

This work employs a mixed-method exploratory design combining (1) systematic literature analysis, (2) cross-jurisdictional legal comparison, and (3) coherence and partnership evaluation. The design is appropriate due to the conceptual nature of SDG-17 governance and the diverse legal instruments, institutional settings, and policy mechanisms involved in environmental harmonisation.

B. Data Collection

1. **Documentary Sources:** Primary data include international treaties, national environmental statutes, SDG implementation reports, policy coherence guidelines, multilateral environmental agreement (MEA) compliance documents, and partnership evaluations published before July 2022.

2. **Secondary Literature:** Peer-reviewed studies, institutional reports (UN, OECD, JRC, INTOSAI, ECLAC), and comparative environmental law analyses were systematically reviewed to identify gaps in coherence evaluation, partnership accountability, and legal convergence.

3. **Selection Criteria:** Documents were included if they:

   - Explicitly reference SDG-17 or its sub-targets,
   - Address environmental regulatory frameworks at national or regional levels,
   - Provide tools, metrics, or principles relevant to law harmonisation.

C. Analytical Framework

The study uses a three-tier analysis model:

1. **SDG-17 Functional Mapping:** A conceptual mapping connects SDG-17 sub-targets (policy coherence, partnerships, capacity-building, technology transfer) with mechanisms for environmental law alignment.

2. **Comparative Legal Analysis:** Environmental laws from selected jurisdictions are compared based on:

   o Core regulatory principles (precaution, polluter-pays, intergenerational equity),
   o Enforcement architecture,
   o Alignment with MEAs and SDG-related national commitments.
   This technique enables identification of

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convergence patterns and structural divergences.

3. **Coherence and Partnership Evaluation:** Tools such as policy coherence metrics, SDG interlinkage models, and partnership performance frameworks are applied to assess the effectiveness of SDG-17 mechanisms in fostering harmonisation. Emphasis is placed on evaluating the extent to which partnerships translate into measurable legal or institutional reforms.

D. Synthesis and Model Development

Insights from the analyses are integrated to develop a structured conceptual model showing how SDG-17 can drive legislative harmonisation. The model links coherence mechanisms, partnership accountability, and principle-based legal alignment to measurable convergence in environmental laws.

E. Validation Approach

The proposed model is validated through triangulation, ensuring credibility by comparing findings from:

- Document analysis,
- Cross-jurisdictional trends,
- Institutional performance assessments. Triangulation strengthens the reliability of the conclusions and reduces bias inherent in any single data source.

F. Ethical and Analytical Considerations

The study follows ethical research practices by relying solely on publicly available legal and institutional documents, ensuring transparency and replicability. Interpretations focus on legal structures and governance mechanisms rather than political judgements, in accordance with IEEE objectivity principles.

Comparative Analysis of Environmental Laws Across Countries

Environmental laws across nations exhibit significant divergence in scope, enforcement architecture, regulatory philosophy, and alignment with multilateral environmental agreements (MEAs). These variations pose critical challenges for harmonisation efforts under SDG-17, which seeks to strengthen global partnerships, promote policy coherence, and enhance institutional capacity. A comparative analysis of selected jurisdictions—such as the European Union (EU), United States (US), India, China, and selected OECD nations—reveals structural patterns that influence the feasibility of cross-border legal alignment.

A. Regulatory Philosophy and Guiding Principles

Countries differ fundamentally in the principles that underpin their environmental laws. The EU adopts a preventive and precautionary principle-based framework embedded in the Treaty on the Functioning of the European Union (TFEU), mandating environmental protection as a cross-sectoral requirement. The US relies more heavily on risk-based regulation, emphasising cost–benefit analysis under statutes such as the National Environmental Policy Act (NEPA) and the Clean Air Act (CAA). India integrates sustainable development and polluter-pays principles through judicial interpretations and statutory instruments like the Environment Protection Act (EPA, 1986). China, traditionally oriented toward economic growth, has shifted toward an eco-civilization model, emphasizing environmental accountability, stringent pollution controls, and ecological red lines. These philosophical differences create foundational divergences in how environmental laws are drafted, interpreted, and enforced.

B. Institutional and Enforcement Capacities

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Institutional capacities vary widely across countries, affecting both the strength and consistency of environmental governance. The EU benefits from supranational oversight through the European Commission, which can issue binding directives and impose penalties for non-compliance. The US Environmental Protection Agency (EPA) has strong enforcement powers, including inspection, litigation, and administrative actions. In contrast, developing nations often face constraints in funding, technical capacity, and monitoring infrastructure. India and China have progressively strengthened enforcement agencies, yet challenges persist in decentralised monitoring, data transparency, and compliance verification. SDG-17 addresses these disparities through targets related to capacity-building and technology transfer, but empirical evidence shows uneven uptake across national systems.

C. Alignment With Multilateral Environmental Agreements

Another divergence lies in how countries incorporate MEA obligations into domestic legal systems. EU countries typically implement MEAs through harmonised directives, yielding relatively uniform compliance across member states. The US, although a signatory to many MEAs, adopts a selective approach to ratification and domestic incorporation, resulting in inconsistent alignment with global standards. China has incorporated MEAs into national plans through five-year cycles, prioritising climate and pollution goals. India follows a dualist system, where MEA obligations must be enacted through national legislation, sometimes leading to delays in implementation. These differences in legal incorporation mechanisms affect the speed and depth of harmonisation efforts.

D. Sector-Specific Variations in Environmental Regulations

Environmental laws differ substantially across sectors such as **air quality, water governance, waste management, climate policy, and biodiversity conservation**.

- The EU enforces clear emission limits, circular economy mandates, and climate neutrality targets.
- The US maintains sector-specific statutes but lacks a unified federal climate framework, causing variability across states.
- China enforces strict air and water pollution standards through top-down administrative actions supported by digital monitoring.
- India uses a mixed regulatory–judicial model, where the courts frequently intervene through public interest litigation to enforce environmental norms.

These sectoral variations make harmonisation complex, as SDG-17 must bridge not only national differences but also sectoral fragmentation.

E. Degree of Policy Coherence Across Jurisdictions

The coherence of environmental policies within each country influences cross-border harmonisation. The EU exhibits the highest internal coherence due to integrated policy frameworks and supranational enforcement. OECD nations show moderate coherence, though economic and energy policies sometimes conflict with environmental objectives. Emerging economies such as India and China often face tension between development priorities and environmental protection, resulting in variable coherence across ministries and governance levels. SDG-17's focus on policy coherence (Target 17.14) provides a normative pathway for convergence, but practical implementation remains inconsistent.

F. Structural Barriers to Harmonisation

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The comparative analysis identifies several barriers that impede global harmonisation:

1. **Legal diversity:** Differences in legal traditions—common law, civil law, socialist law—shape the structure and interpretation of environmental statutes.

2. **Economic asymmetry:** Developmental priorities affect regulatory strictness and investment in environmental governance.

3. **Institutional fragmentation:** Overlapping authorities and weak inter-agency coordination reduce coherence.

4. **Partnership accountability gaps:** Many SDG-17 partnerships lack transparency, limiting their contribution to legal alignment.

These barriers highlight why harmonisation must prioritise common principles and shared implementation standards rather than identical legal texts.

G. Opportunities for Convergence Through SDG-17

Despite divergences, opportunities for alignment are increasing:

- Global climate commitments under the Paris Agreement promote shared legal templates for long-term strategies, transparency, and carbon markets.

- Technology transfer and capacity-building under SDG-17 enable developing countries to adopt comparable monitoring and enforcement mechanisms.

- Policy coherence frameworks developed by OECD, JRC, and INTOSAI can be repurposed to assess convergence across environmental laws.

- Principle-based harmonisation—precaution, polluter-pays, sustainable development—offers a realistic foundation for alignment across diverse legal systems.

Thus, SDG-17 serves as a meta-governance tool capable of guiding systematic, incremental harmonisation of environmental laws.

Role of SDG-17 in Legal Harmonisation

Sustainable Development Goal 17 (SDG-17), which focuses on strengthening partnerships, enhancing policy coherence, and mobilising the means of implementation, plays a pivotal role in advancing the harmonisation of environmental laws across countries. While SDG-17 does not prescribe specific legal reforms, it provides the enabling governance architecture that connects international commitments with domestic legislation. Its targets—spanning finance, technology, capacity-building, trade, and systemic coherence—form the basis for creating shared regulatory pathways and aligning fragmented environmental frameworks.

A. Policy Coherence as a Foundation for Legal Alignment

Target 17.14 of SDG-17 emphasises enhancing policy coherence for sustainable development, which directly contributes to harmonising environmental laws. Policy coherence frameworks help identify contradictions between sectoral policies—such as energy, industry, and environment—and support the creation of unified regulatory approaches. By encouraging governments to integrate environmental objectives across ministries, SDG-17 reduces domestic fragmentation and creates comparable governance structures across jurisdictions. This integrated policymaking process lays the groundwork for aligning legal principles, regulatory standards, and compliance mechanisms at the international level.

B. Strengthening Global and Regional Partnerships

SDG-17 positions partnerships as a catalyst for legal convergence. Multi-stakeholder partnerships involving governments, international organisations, civil society, and the

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private sector facilitate knowledge exchange, legal benchmarking, and collaborative standard-setting. These partnerships enable countries with varying institutional capacities to adopt common principles such as the precautionary approach, polluter-pays principle, and ecosystem-based management. Regional alliances—such as the European Union, ASEAN, and African Union—often utilise SDG-17 structures to coordinate environmental legislation, demonstrating how partnerships accelerate both vertical (local to national) and horizontal (country-to-country) harmonisation.

C. Mobilising Financial and Technical Resources for Legal Reform

Sub-targets of SDG-17 related to finance, technology transfer, and capacity-building support countries in modernising and aligning their environmental laws. Developing nations frequently lack the regulatory infrastructure, digital monitoring systems, and enforcement capabilities required to meet global environmental standards. Through mechanisms such as the Green Climate Fund, bilateral cooperation programmes, and technology-sharing platforms, SDG-17 enables these countries to adopt updated legal frameworks that are compatible with international norms. This reduces disparities in legal implementation and enhances the overall consistency of environmental governance.

D. Enhancing Data, Monitoring, and Institutional Accountability

Legal harmonisation requires robust monitoring and data governance systems to assess compliance, track progress, and ensure transparency. SDG-17 calls for improved data collection, standardised indicators, and institutional accountability frameworks, all of which are essential for aligning environmental laws. Shared metrics—such as emissions inventories, biodiversity indicators, and sustainability reporting standards—allow countries to measure

performance in comparable ways, reducing ambiguity and strengthening legal interoperability. These systems encourage countries to update legislation to remain consistent with global reporting frameworks.

E. Supporting Principle-Based Harmonisation

While structural differences in legal traditions often prevent uniform legislative language, SDG-17 promotes a principle-based approach that enables harmonisation without requiring identical laws. The SDG framework reinforces universal sustainability principles—precaution, intergenerational equity, resource efficiency, and resilience—that can be embedded into domestic legislation regardless of the legal system. This approach allows countries to align substantively even when procedural or structural elements differ, facilitating functional harmonisation that supports global environmental governance.

F. Encouraging Alignment with Multilateral Environmental Agreements

SDG-17 complements existing MEAs by strengthening coordination, implementation support, and compliance monitoring. Many MEAs lack robust enforcement mechanisms, making harmonisation dependent on voluntary cooperation. SDG-17 enhances cooperation through shared implementation platforms, capacity-building initiatives, and alignment of MEA targets with SDG indicators. This interlinkage encourages countries to update national environmental laws to reflect MEA obligations, promoting convergence across jurisdictions.

G. Addressing Governance Asymmetries

A major barrier to harmonisation is the disparity in legal and institutional capacities across developed and developing nations. SDG-17 explicitly seeks to reduce these asymmetries by improving access to finance, technology, expertise, and institutional strengthening. By levelling governance

capabilities, SDG-17 enhances the ability of less-resourced countries to participate in international standard-setting processes and to adopt harmonised environmental regulations.

IV. CONCLUSION

The comparative assessment of environmental laws across countries demonstrates that significant disparities persist in regulatory design, enforcement capacity, and incorporation of multilateral environmental obligations. These divergences hinder coordinated global action on climate change, biodiversity loss, and transboundary pollution. Within this fragmented landscape, Sustainable Development Goal 17 (SDG-17) provides a critical integrative framework capable of addressing structural obstacles to legal harmonisation. Its emphasis on policy coherence, multi-stakeholder partnerships, financial mobilisation, capacity-building, technology transfer, and data governance establishes the foundational mechanisms necessary for aligning environmental legislation across jurisdictions.

The analysis shows that SDG-17 does not act as a standalone prescriptive instrument but as an enabling governance platform that strengthens countries' ability to converge around shared environmental principles, regulatory standards, and implementation practices. By promoting harmonisation through coherence frameworks and partnership-based coordination, SDG-17 facilitates incremental legal alignment while respecting national contexts. However, the study also identifies gaps in empirical evidence linking SDG-17 initiatives to measurable legislative reforms, highlighting the need for improved monitoring, accountability mechanisms, and systematic evaluation of partnership outcomes.

The findings reinforce that SDG-17 is essential for transforming fragmented environmental regimes into a more coherent global governance system. Strengthening the operationalisation of SDG-17—particularly in data standardisation, capacity-building, and partnership accountability—will be critical for accelerating harmonisation efforts and enhancing the effectiveness of environmental law as a tool for achieving sustainable development. Future research should focus on empirical case studies and performance metrics to further clarify the pathways through which SDG-17 influences concrete legislative convergence.

V. FUTURE SCOPE

Future research on harmonising environmental laws through SDG-17 should advance beyond conceptual frameworks toward empirical, data-driven analysis capable of measuring the actual legislative impact of SDG-17 initiatives. Comparative case studies across regions, particularly in developing economies, can provide deeper insights into how partnerships, technology transfer, and capacity-building translate into regulatory reforms. Further work is also needed to develop quantitative indicators that assess the degree of legal convergence and policy coherence across countries. Integrating digital governance tools—such as AI-assisted legal mapping, harmonised data standards, and real-time monitoring systems—offers promising pathways to strengthen cross-border alignment. Additionally, examining the role of emerging global agreements, climate finance mechanisms, and regional regulatory blocs may reveal new avenues through which SDG-17 can accelerate harmonisation. Strengthening accountability frameworks for multi-stakeholder partnerships and exploring the legal implications of principle-based harmonisation will be essential to ensure that SDG-17 continues to evolve as an effective driver of environmental governance convergence.

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