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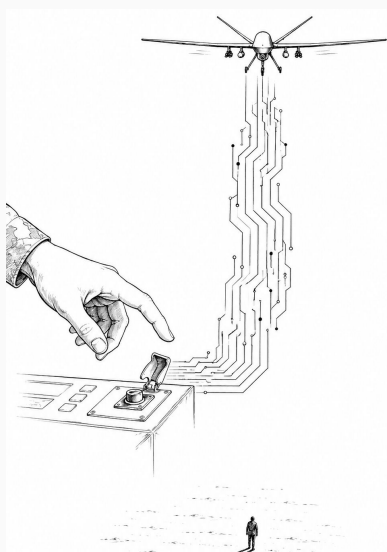
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BRINGING NEW VOICES INTO HUMAN RIGHTS DIALOGUE

Dear Readers,

With this second edition of the Human Rights Chronicle, we are pleased to continue this evolving platform dedicated to connecting research, practice, and contemporary human rights debates. Following the first edition, we have been encouraged by the constructive feedback received and have taken it on board as we continue to refine and develop the Chronicle. We also remain very open to further feedback as the publication evolves. This edition places particular emphasis on opening space for early-career researchers, including master's and PhD students, whose contributions are now an integral part of the publication. As human rights challenges grow more complex and interconnected, younger voices play an important role in keeping debates fresh. Early-career researchers often bring fresh perspectives, new approaches, and a willingness to question established assumptions. Their work helps renew the ways in which we understand and engage with ongoing global debates. Creating space for these voices also reflects a broader commitment: ensuring that emerging scholars are not only observers of international discussions, but active contributors to them. In doing so, we hope to strengthen the diversity and relevance of the conversations that shape the human rights field today. We are pleased to share this second edition with you and remain grateful for your continued engagement and support.

Dr Fabrice Crégut - Executive Director



OPINION PIECE

BEYOND HUMAN CONTROL: AUTONOMOUS WEAPONS AND THE FUTURE OF THE RIGHT TO LIFE

Rapid advances in artificial intelligence (AI) are transforming nearly every aspect of human activity, including health care, learning, rule making, and safety.

Though these changes offer significant benefits for society, they also create new challenges for the protection of fundamental human rights. One of the most controversial applications of AI is building autonomous weapon systems (AWS), able to identify, select, and engage targets with little or no direct human intervention.

Arguments about autonomous weapons are usually seen in tech, military, or strategic terms. But really, the problem is mainly a human rights concern. Delegating lethal decision-making to computers challenges one of the fundamental

principles in international human rights law: decisions concerning human life must be made by human beings who can show judgment, morality, and legal responsibility.

The right to life, enshrined in Article 6 of the International Covenant on Civil and Political Rights (ICCPR), occupies a central place within the international human rights system. The UN Human Rights Committee has said many times this right is a supreme right from which no derogation is permitted, even during public emergencies. Usually, legal discussions concerning the right to life focus on when states can legally use power. However, the rise of autonomous weapons brings up a deeper issue: can a machine legitimately make decisions determining whether a person lives or dies?

This answer affects the future of international law. Human rights laws rely on accountability, duty, and human action. Each legal use of deadly force needs a human decision-maker to assess necessity, proportionality, and foreseeable consequences. Autonomous systems challenge this principle by moving key choice tasks to algorithmic processes missing moral judgment and legal reasoning.

Aside from worries about working well, these weapons reveal a significant accountability gap. If an autonomous system unlawfully kills civilians, attributing responsibility becomes difficult. Leaders might say they had little power over the system's choices, while manufacturers may argue that responsibility lies with operators. This doubt threatens a main promise of the right to life: getting legally punished for taking life wrongly.

Autonomous weapons also raise concerns regarding algorithmic bias and reliability. AI systems operate on data that may be incomplete, inaccurate, or influenced by existing prejudices. In conflict situations, such flaws could lead to the misidentification of targets and increase the risk of unlawful civilian harm, further challenging compliance

with international human rights and humanitarian law.

Also, using such weapons asks about human dignity. Human rights law protects not only biological life but also the inherent dignity of every individual. Giving life-and-death decisions to algorithms risks reducing human beings to data points within algorithmic processes, undermining the fundamental principles upon which human rights law is based.

These worries show why the rule of meaningful human control has emerged as a central principle in international discussions about autonomous weapons. While states continue to disagree on the precise legal framework governing such technologies, rising awareness shows meaningful human oversight is not just a technical fix. Instead, it forms a legal and moral duty stemming from guarding the right to life and keeping human dignity safe.

As technological capabilities continue to evolve rapidly, the international community faces a critical choice. The international community may allow technological innovation to outpace legal safeguards, or it can reaffirm that human beings must remain responsible for decisions over life and death. Safeguarding the right to life in the age of artificial intelligence needs more than better code; it requires the preservation of human judgment inside all acts ending a person's life.

For this reason, a growing number of scholars, humanitarian organizations, and United Nations bodies have called for stronger international governance mechanisms. Such efforts should aim to ensure transparency, accountability, human oversight, and effective legal review of emerging military technologies. Without clear international standards, the risk remains that technological capabilities will evolve faster than the legal and ethical safeguards

necessary to protect civilians and uphold the right to life.

The challenge posed by autonomous weapons is not merely technological; it strikes at the very foundations of international human rights law, which presupposes human agency, accountability, and moral judgment in decisions affecting human life.

Ultimately, the future of the right to life may depend on whether international law succeeds in preserving a fundamental principle: decisions over life and death must remain under meaningful human control. *The question is no longer whether machines can make such decisions, but whether humanity is prepared to accept that they should.*

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WHAT'S NEWS?

UN REPORT HIGHLIGHTS SYSTEMATIC ABUSES AGAINST PALESTINIAN CIVILIANS

In June 2026, a United Nations-mandated Independent International Commission of Inquiry reported that Palestinian civilians continue to face widespread human rights violations in both Gaza and the occupied West Bank. The [report](#) documented unlawful killings, forced displacement, restrictions on humanitarian access, and increasing violence by Israeli settlers, while also raising concerns about violations committed by Palestinian armed groups. The Commission stressed that civilians remain the primary victims of the conflict and called for greater accountability, protection of civilians, and respect for international humanitarian and human rights law by all parties.

ICJ CONFIRMS THAT THE RIGHT TO STRIKE IS PROTECTED UNDER ILO CONVENTION No. 87

The International Court of Justice (ICJ) has issued its [Advisory Opinion](#) on the Right to Strike under the Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87), following a request by the International Labour Organization (ILO). The Court unanimously confirmed its jurisdiction and agreed to comply with the request, before concluding by a majority of 10 votes to 4 that the right to strike of workers and their organizations is protected under Convention No. 87. The request stemmed from long-standing disagreement among ILO constituents regarding the interpretation of the Convention.

HUMAN RIGHTS CONCERNS REMAIN OVER US IMMIGRATION POLICIES AHEAD OF FIFA WORLD CUP 2026

Human rights concerns continue to surround US immigration and security policies ahead of the FIFA World Cup 2026. Earlier this month, UN High Commissioner for Human Rights Volker Türk called for a “massive rethink” of policies following [reports](#) of visa denials, heightened surveillance, and racial profiling affecting players, officials, and supporters. While some practical adjustments have since been made for certain delegations, broader concerns remain over whether immigration enforcement measures are compatible with the principles of non-discrimination, inclusion, and equal access expected of major international sporting events.

EU SURVEY HIGHLIGHTS RISKS OF SCREEN TIME FOR CHILDREN

A new [EU-wide survey](#) published on 16 June 2026 highlights concerns about the impact of excessive screen time and social media use on adolescents' mental and physical wellbeing. Young people in the EU spend an average of 4.5 hours online on school days and over 6 hours on weekends, with most reporting negative effects such as fatigue, headaches, and concentration problems. Nearly one in three also report feeling stressed, sad, or socially excluded due to social media, while many are exposed to harmful content online. The findings come as an EU expert panel on child safety online prepares recommendations to strengthen protections for minors in the digital environment.

NEW GLOBAL ALLIANCE LAUNCHED TO ADVANCE HUMAN RIGHTS

In June 2026, the United Nations Human Rights Office (OHCHR) launched the [Global Alliance for Human Rights](#), an initiative designed to bring together governments, civil society, businesses, academics, faith leaders, artists, and youth to strengthen support for human rights worldwide. The Alliance aims to address growing challenges facing the international human rights system, including shrinking civic space, persistent violations, and underfunding. As part of its initial phase, the OHCHR will launch several initiatives, including a Global Helpdesk on Business and Human Rights, the RightsX Summit on digital innovation, and the Human Rights in Every Classroom programme.

EU ENGAGEMENT WITH TALIBAN SPARKS HUMAN RIGHTS DEBATE

The European Union recently hosted Taliban representatives in Brussels for technical discussions on migration and consular affairs, marking [a rare instance of direct engagement with Afghanistan's de facto authorities](#). While EU officials described the talks as necessary to address practical cooperation issues, the meeting drew criticism from human rights advocates concerned about ongoing restrictions on the rights of women and girls under Taliban rule. The development has reignited debate over how international actors can engage with the Taliban while maintaining pressure for accountability and respect for human rights.

GLOBAL GOVERNANCE & INCLUSIVE SOCIETIES

WHEN THE GUNS FALL SILENT, BUT THE SUFFERING DOES NOT: THE ENFORCEMENT GAP IN MIDDLE EAST CEASEFIRES, AND WHY IT IS A HUMAN RIGHTS PROBLEM

Esraa Ezzeldin is a peace and conflict expert with over a decade of experience working at the intersection of policy, research, and program management. She led numerous programs across Africa and the Middle East. She has worked with governments, UN agencies, international & regional organizations, and grassroots organizations. Esraa is a member of the Mediterranean Women Mediators Network (MWMN) and FemWise Africa. She holds an M.A. in Peace and Conflict Studies from the University of St Andrews, UK, and B.Sc. in Political Science.

Across the Middle East, ceasefires keep being announced; in Gaza, in Lebanon, and around the Iran crisis. Each promise, on paper, to stop the killing. On the ground the fighting continues, aid stays blocked or heavily controlled, and civilians are left wondering whether the word means anything at all. A ceasefire is only as good as the ability to enforce it, and right now this ability is failing. The failure is not just diplomatic. It is a human rights crisis, and the ones who pay for it are civilians.

What a Ceasefire Is - and Isn't

A ceasefire is a temporary agreement where parties agree to stop fighting from a given moment. It is not a peace treaty; it does not resolve the underlying dispute. It simply suspends or reduces the violence. Yet, temporary is not the same as lawless. Once a ceasefire takes effect, the parties remain bound by international humanitarian law. Where a Security Council resolution stands behind the deal, those obligations should become even more binding. These obligations are real; the question is what happens when they are violated.

Modern ceasefires are rarely a clean step from war to peace; more often they are limits drawn around a war that is still going. They are most fragile when non-state armed groups are involved, because authority is split. Ambiguous language plays a part too, but it doesn't suit both sides equally. Where the parties are militarily mismatched, the weaker side tends to push for precision,

tight wording and real monitoring, because the text is the only leverage it has. The stronger side usually wants the opposite: loose wording that opens a grey zone, room to keep making gains while the deal nominally holds.

So, a vague ceasefire without credible monitoring and verification becomes a contest over whose story is true. Deals like that rarely collapse in one blow. They die by inches: a "limited" strike here, a "self-defense" operation there, until the exceptions quietly become the norm. Neither side rushes to call the deal dead, either, because whoever does is blamed for restarting the war, so even plain breaches go unannounced. For the weaker party the logic is starker: a hollow ceasefire is punishing, but open war is worse, so it clings to the label as a kind of shelter.

The Enforcement Gap

A ceasefire can open the door to diplomacy. It can also be a tarp thrown over the battlefield. The main deciding factor is enforcement, and there is strikingly little of it. The conduct of war has been, extensively, written down for over a century, from the Hague to the Geneva Conventions. Ceasefires have not; they are improvised bargain by bargain, with no shared rules for how they should be designed, watched, or made to hold. Ceasefires have no fixed legal formula. They are an outcome of political-military negotiations.

Research on ceasefires keeps landing on one stubborn fact: violations are the rule, not the exception. What separates a ceasefire that holds from one that falls apart is not whether anything goes wrong, but whether there is machinery to catch it, address it and stop it spiraling; resilience, in the specialists' term.[1] Where ceasefires have lasted, structure held them up. Where it was missing, they were left to the goodwill of the parties, and goodwill ran out.

In much of the Middle East that structure is thin. Monitoring and verification, where they exist at all, is too often left to parties with a stake in the outcome rather than to neutral referees, quick to look away, slow to act, and in some cases, there is no independent presence on the ground with the mandate to say plainly what is happening. The Security Council, the enforcer of last resort, is regularly paralysed: one veto from any permanent member is enough, so whenever a powerful state is in the fight or shielding someone in it, the Council goes quiet.

Why This is a Human Rights Problem

None of this is abstract. It has a cost, and civilians carry it. This is a rights problem, not only a humanitarian one; a ceasefire doesn't just raise the hope of relief, it creates obligations. Humanitarian access is the clearest test: when the guns go quiet, but food, medicine, fuel and shelter still cannot reach people, the ceasefire is failing the very people it was meant to protect.

In Gaza, even while a ceasefire was supposedly in force, aid is far below what is needed, crossings are shut, and hospitals running on empty.

Protection is the second test, and it is failing too. Across these ceasefires, civilians keep being killed after the deal is announced; in southern Lebanon as in Gaza, UN bodies and rights groups go on recording deaths, destruction and displacement long after the signing. Nor can people simply go home: a family will not return to a street it believes is still mined, shelled, or without water and power, so displacement hardens into a life suspended between the war and whatever is meant to follow. The right to safety, shelter and return does not lapse because a deal was signed, but a right no one will enforce is, for the person living under it, barely a right.

There is a slower danger underneath. Every breach that goes unanswered wears away at the law itself, and when people watch ceasefire promises broken without consequence, they stop trusting not only the warring parties but the whole system, the UN, the courts, the idea that any of it binds. Amnesty International has warned that respect for international law is steadily coming apart, and that civilians cannot afford another “partial, selective or short-lived pause.” That erosion outlasts any single war.

What Needs to Change

The gap is a problem of design and political will, not of law alone. Monitoring is no magic fix. Ukraine’s Minsk agreements were watched closely and collapsed anyway. So, a ceasefire can still collapse if the parties do not intend to comply. But without monitoring even willing parties cannot prove they are keeping their word.

Set minimum rules for ceasefires. Ceasefires are still improvised from scratch every time; what’s needed is a standard ceasefire framework, a baseline of what the parties must stop, what they must allow, and what follows when they don’t, measured against things anyone can check: aid let in, civilians harmed, displaced families able to go home.

Make monitoring and verification independent and early. Actors verifying a ceasefire should not be the governments that negotiated it. Neutral monitoring, drawing on the UN’s human rights mechanisms, but also on the local councils, medics and journalists who often know first when a violation happens, would shrink the room for denial. And monitors need to be on the ground from the start: small violations are almost inevitable, especially where a chain of command is weak, and someone watching from day one is what keeps a “limited” incident from becoming the next round.[2]

Treat humanitarian access as a red line, not a bargaining chip. Aid promises should be concrete, what gets in, through which crossings, by when, and blocking them should carry a clear cost.

Put a price on violations. Catching a breach is not the same as punishing it. The UN already runs a model worth borrowing: its Children and Armed Conflict list names the parties responsible for grave violations and keeps them named until they earn their way off. A public, evidence-based record of ceasefire breaches, kept out of political reach, would make them harder to hide.

Make compliance pay. Punishment is only half the equation; a party also needs a reason to keep

the deal, not just a fear of being caught breaking it. The most reliable lever in real ceasefires is the carrot; reconstruction money, sanctions relief, a step toward recognition. Released in stages as compliance is verified and pulled back the moment it isn’t. A side that gains by holding to the terms and loses by violating has a reason to hold that no monitor can manufacture. Verification and consequences are two halves of one structure; monitoring matters only because its findings are what trigger the rewards and sanctions beneath it.

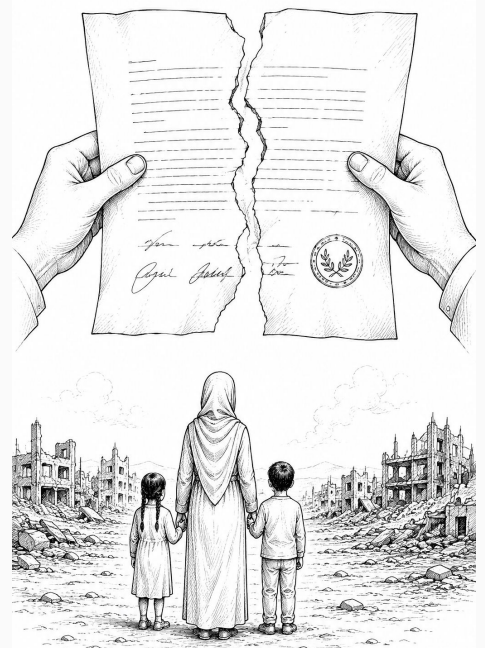
Route around the deadlock.

When the Security Council is paralyzed, the General Assembly, regional bodies and human rights mechanisms have a bigger role to play. They can request investigations, hold emergency debates, support documentation, and keep civilian protection a priority on the political agenda.

References

[1] Govinda Clayton, Laurie Nathan and Claudia Wiehler, “Ceasefire Success: A Conceptual Framework,” *International Peacekeeping* 28, no. 3 (2021).

[2] Antonia Potter, “Ceasefire Monitoring and Verification: Identifying Best Practice,” Centre for Humanitarian Dialogue, June 2004.



GLOBAL GOVERNANCE &
INCLUSIVE SOCIETIES

EDUCATION, EMPLOYMENT, AND WOMEN'S LABOR RIGHTS IN IRAN AND PAKISTAN: A COMPARATIVE PERSPECTIVE

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In Iran, women make up nearly half of all university students. In Pakistan, women are a majority in several fields of higher education.

By any measure of educational achievement, women in both countries have proven their capacity and ambition. Yet both countries rank among the lowest in the world for women's economic participation. Pakistan ranks last, 148th out of 148 countries, in the World Economic Forum's Global Gender Gap Report 2025. Iran ranks 145th.[1]

The findings of this research suggest that legal and institutional factors play a significant role in shaping women's access to the labor market in both countries. The research compares the constitutional and statutory frameworks of Iran and Pakistan. It finds that both countries have built legal and institutional frameworks that continue to limit women's participation in the labor market, but through different mechanisms. Understanding that difference matters because the solution in each country is not the same.

Two Countries, Two Mechanisms

The comparison suggests that barriers arise through different mechanisms: in Iran, through certain explicit legal provisions, and in Pakistan, through implementation and enforcement challenges.

In Iran, several provisions are written directly into the legal text. The Civil Code grants husbands the right to prohibit their wives from working, under Article 1117.

A wife's financial support is conditional on her obedience under Article 1108. The highest state positions, supreme leader, president, and head of the judiciary, are constitutionally closed to women. The mandatory hijab law, meanwhile, excludes any woman who does not comply from governmental employment, in a country where the state is the dominant employer.[2]

This last point deserves attention. It points to a feature of Iran's legal framework that a concept developed to describe how women are not only affected by their gender but also by the visibility of their religious compliance. A woman who does not wear the hijab cannot be a teacher, a bank employee, or a civil servant, not because of her qualifications, but because of how she expresses her beliefs in public. Gender and religious visibility become two reinforcing, rather than separable, grounds of exclusion. This argument draws on the constitutional provisions discussed above and on Iran's 1983 Law on Observance of Islamic Appearance and Hijab in the Workplace, and may warrant further comparative study in jurisdictions with similar religious-compliance requirements.[3]

This form of exclusion appears legally distinct from gender discrimination alone. It not only raises the question of whether a person is a woman; it also raises the question of whether that woman visibly conforms to state-mandated religious norms. Where both conditions are not met, employment

options narrow considerably.

Pakistan: Formal Commitments, Practical Gaps

Pakistan's situation looks different on the surface. Its constitution is written in gender-neutral language. Article 25 prohibits discrimination based on sex. Pakistan has ratified the Convention on the Elimination of All Forms of Discrimination Against Women, which Iran has not.[4] It has enacted anti-harassment legislation, criminalized the deprivation of women's inheritance rights, and passed a maternity leave law.

And yet women's labor force participation has remained at around 22–24% for over a decade. Among university-educated women, unemployment reaches 23.9%. The education gap has narrowed considerably; the employment gap has not followed at the same pace.[5]

Part of the explanation may lie in implementation. Pakistan's legal framework appears to limit women's access not primarily through what it states, but through what it omits and how consistently it is enforced. The Factories Act of 1934 is still in force. It bars women from night shifts and certain industrial jobs, channeling them away from the highest-paying formal sector work, a restriction originally justified on protective grounds.[6]

Approximately 92% of Pakistani women who work do so in the informal economy, where comparatively fewer protections apply: no minimum wage guarantee, no anti-harassment

mechanism, no maternity protection. Courts in some rural areas reportedly apply customary practices that may not always align with statutory protections available to women, though further empirical research would be needed to assess the scale of this pattern.[7]

The pattern that emerges is one of progressive legislative text alongside a more limited practical reach. Laws that do not consistently reach the population they are designed to protect may fall short of their intended effect, regardless of their formal scope.

Implications for International Engagement

Both countries have accepted international human rights obligations relevant to this discussion. Iran has ratified the International Covenant on Economic, Social and Cultural Rights and ILO Convention 111, which prohibits discrimination in employment. Pakistan has ratified CEDAW and all eight of the ILO's fundamental conventions. The implementation of these commitments continues to face significant challenges.[8]

The IMF estimates that closing the gender gap in labor force participation could raise Iran's GDP by as much as 34%. The International Growth Centre has projected a potential increase of up to 60% for Pakistan if women's labor force participation matched that of men.⁹ These figures are offered not to suggest that women's rights should be valued primarily in economic terms, but to illustrate that the consequences of limited labor market access extend well beyond the individuals directly affected.

For diplomats and policymakers engaged with Iran and Pakistan in human rights forums, treaty body reviews, or development partnerships, this comparison

highlights the distinction between formal legal commitments and their implementation in practice. Pakistan's experience illustrates this clearly: ratifying CEDAW while a large share of women remain outside the reach of its implementing legislation reflects a gap between commitment and outcome that may be worth closer attention. The specific mechanism of exclusion also appears relevant to the design of reform: in Iran, this may involve revisiting explicit legal provisions; in Pakistan, it may involve strengthening enforcement and extending existing protections to sectors where most women are employed.

Policy Considerations

For Iran, the research points to several areas that may merit reconsideration: provisions in the Civil Code that place a woman's right to work under her husband's authority; the conditioning of certain forms of employment on religious dress compliance; the constitutional restriction of the highest state positions to men; and Iran's continued non-ratification of CEDAW.

For Pakistan, areas for further reform and reflection may include extending labor protections to the informal sector, where many women are employed; strengthening enforcement mechanisms related to equal pay; reconsidering Factories Act provisions that restrict women's access to industrial employment; and supporting consistent implementation of CEDAW-related obligations at the provincial level.

For the international community, treaty body reviews, Universal Periodic Review processes, and development partnerships may benefit from distinguishing more explicitly between formal legal commitments and their implementation in practice. The comparison underscores the

importance of assessing both legal commitments and their practical implementation when evaluating progress in the realization of women's labor rights.

The findings suggest that legal and institutional frameworks play an important role in shaping labor market outcomes for women, alongside broader economic and social factors. The comparison between Iran and Pakistan indicates that this relationship can operate through different legal pathways, and that recognizing this difference may be useful for those engaged in reform and policy dialogue in both contexts.

References

- [1] [World Economic Forum, Global Gender Gap Report 2025, Cologny: WEF, 2025.](#)
- [2] [Civil Code of the Islamic Republic of Iran, Articles 1108, 1117; Constitution of the Islamic Republic of Iran, 1979, as amended 1989.](#)
- [3] Law on Observance of Islamic Appearance and Hijab in the Workplace, Islamic Republic of Iran.
- [4] [Constitution of the Islamic Republic of Pakistan, 1973, Article 25.; United Nations General Assembly, Convention on the Elimination of All Forms of Discrimination Against Women, GA Resolution 34/180, 18 December 1979.](#)
- [5] [Pakistan Bureau of Statistics, Labour Force Survey 2024–25, Islamabad: PBS, 2025.](#)
- [6] Factories Act, 1934 (Pakistan).
- [7] [International Labour Organization, Women and Men in the Informal Economy: A Statistical Picture, 3rd ed., Geneva: ILO, 2018.](#)
- [8] [International Covenant on Economic, Social and Cultural Rights, GA Resolution 2200A \(XXI\), 16 December 1966.](#)
- [9] International Monetary Fund, Gender Inequality and Economic Growth, IMF Working Paper 2020/119, Washington D.C.: IMF, 2020. International Growth Centre, ['Women's Economic Empowerment is Key to Pakistan's Development'](#), London: IGC.

CLIMATE CHANGE
& HUMAN RIGHTSWHEN GREEN TRANSITIONS EXCLUDE COMMUNITIES:
INSTITUTIONAL FRAGMENTATION AND HUMAN RIGHTS IN CENTRAL AFRICA

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Imagine a solar farm is built near your village. On paper, it looks like progress, promising clean energy, reduced emissions, and a sustainable future. But no one asked the families who farmed that land for generations. No one explained what would happen to their livelihoods. When they raised concerns, there was no clear authority to listen: the energy ministry pointed to the environment ministry, which pointed to a local office lacking real administrative power. This scenario is not a hypothetical. Documented across project sites in Cameroon, Niger, and Chad, this institutional breakdown is an active pattern playing out repeatedly, turning necessary green infrastructure into a flashpoint for human rights vulnerabilities (World Bank, 2022; UNDP, 2023).

The global push for renewable energy is urgent. However, how that transition happens matters just as much as whether it happens. In many parts of Central and Sahelian Africa, the shift toward clean energy risks repeating historical injustices, not due to a lack of political will, but because the administrative structures meant to protect citizens function in complete isolation from one another.

A Governance Framework Built in Silos

In Cameroon, Niger, and Chad, responsibility for climate and energy policy is fragmented across vertical, sector-specific ministries that operate with minimal inter-agency communication. The Ministry of Energy focuses strictly on

infrastructure targets and electricity outputs to meet pressing national deficits. The Ministry of Environment manages the state's climate commitments under the Paris Agreement through Nationally Determined Contributions (NDCs). Meanwhile, human rights monitoring is left to entirely separate administrative or judicial bodies. Each institution operates with its own budget, its own technical reporting lines, and its own narrow definition of success.

The profound problem is that none of these mandates exist in a vacuum. A renewable energy project can simultaneously affect a community's access to ancestral land, local water tables, pastoralist migration routes, and the overarching climate metrics of the state. Yet, because each administrative entity only sees its own sector-specific slice of the policy landscape, critical cross-cutting implications are missed.

This is not a mere bureaucratic inconvenience; it has severe human consequences. When administrative silos prevent the right hand from knowing what the left hand is doing, accountability becomes severely fragmented and effectively inaccessible. If a community loses its access to water or arable land because of an uncoordinated wind or solar installation, affected families are left in an institutional vacuum with no clear avenue for legal recourse.

The Illusion of Consent: Why FPIC is Marginalized

International human rights law explicitly guarantees that communities have the right to Free, Prior, and Informed Consent (FPIC) before any development project directly affects their land and resources (United Nations, 2007). This standard dictates that local populations must be genuinely informed, meaningfully consulted, and allowed to give or withhold their agreement freely, without external pressure, well before planning phases are finalized.

In the empirical realities of Cameroon, Niger, and Chad, genuine FPIC is rarely implemented during the technical design of energy transitions. This failure stems directly from structural design. While FPIC is a binding international human rights obligation, it does not appear on the operational project checklists of energy ministries. It is not systematically enforced or verified by environmental regulatory agencies. Concurrently, national human rights bodies are entirely excluded from the table when macro-level infrastructure planning decisions are made.

Consequently, local communities, including indigenous peoples, smallholder women farmers, and nomadic herders, are forced to navigate the disruptive socio-economic aftershocks of green infrastructure unilaterally. This exclusion is not only a violation of rights; it is exceptionally inefficient. Evidence from across Sub-Saharan Africa, including comparable contexts in the Sahel, consistently demonstrates that energy projects developed without authentic

community buy-in suffer from high rates of conflict, severe operational delays, and long-term community resistance (IRENA, 2023; World Bank, 2022). Excluding local populations turns sustainable infrastructure into fragile investments.

Comparative Realities: Urgency vs. Safeguards

A comparative analysis of public policy deployment in Cameroon, Niger, and Chad reveals a uniform institutional gap, despite their differing energy mixes and political structures. The core issue is that their administrative architectures were designed for traditional, top-down resource management, and have not been reformed to handle the complex, multi-dimensional nature of a modern just transition.

In Cameroon, national NDCs outline bold ambitions for renewable energy expansion alongside forest protection. Yet, energy project approvals navigate a separate bureaucratic pipeline that does not dynamically integrate human rights impact assessments or coordinated environmental reviews. Any cross-ministerial alignment remains informal and highly inconsistent. In Niger and Chad, where rural electrification rates remain critically low, often sitting well below 20 percent, the systemic pressure to deploy energy infrastructure rapidly is immense. This political urgency to bridge the energy gap frequently overrides vital procedural safeguards. Technical speed is prioritized over inclusive processes, leaving the very communities who need electricity the most completely unprotected against institutional displacement and loss of livelihoods. This reality demonstrates that the issue is not a lack of policy ambition; all three nations are signatories to international human rights charters and national climate frameworks. While multiple factors contribute —

including institutional capacity and financial constraints — a central failure lies in the absence of legal mechanisms to translate those abstract commitments into coordinated, ground-level action.

Rethinking the Just Transition: A Call for Institutional Reform

The concept of a just transition is a central pillar of global climate discourse, ensuring that the shift away from fossil fuels does not disproportionately burden vulnerable populations. However, a truly just transition is structurally impossible if the administrative institutions executing it remain incapable of protecting fundamental human rights. Green technologies, whether solar arrays, wind turbines, or large-scale hydropower dams, are not inherently just. Their equity is determined entirely by how they are governed, who is meaningfully consulted, and what accountability mechanisms protect the population when structural failures occur.

Therefore, institutional reform must no longer be treated as a secondary bureaucratic concern; it is the absolute precondition for sustainable climate action. Without integrated, rights-respecting governance, no volume of international climate finance, technology transfer, or multilateral support will effectively protect or empower those on the frontlines of climate vulnerability.

Actionable Recommendations for Multilateral Partners and Policymakers

To align climate action with human rights principles, policymakers and international partners in the Geneva community must prioritize the following structural reforms:

Establish Mandatory Inter-Ministerial Governance Bodies: Create centralized, legally empowered coordination bodies that integrate

energy planning, environmental monitoring, and human rights oversight into a unified project approval process.

Institutionalize Binding FPIC Frameworks: Mandate Free, Prior and Informed Consent as a legally binding requirement within national energy project legislation, supported by independent monitoring and clear community participation mechanisms during project planning.

Link Climate Finance to Institutional Benchmarks: Multilateral donors, international organizations, and climate finance institutions should condition support on the verified existence of safeguards protecting community rights (UNDP, 2023; World Bank, 2022).

Decentralize Redevisability and Grievance Mechanisms: Empower local, regional, and traditional authorities to monitor human rights compliance during project implementation and establish direct reporting channels to independent national human rights institutions.

Foster Regional Peer-Learning Networks: Support cross-border platforms among Central African and Sahelian states to share governance challenges, regulatory gaps, and administrative best practices.

Conclusion

The green energy transition across Central Africa and the Sahel is an active reality. The critical question remains whether it will be implemented in a manner that respects the fundamental rights of the people it is intended to serve. For those shaping the international climate agenda, the experiences of Cameroon, Niger, and Chad offer a clear lesson: sustainable climate policy is only achievable when governance structures are designed to protect, rather than overlook, human dignity.

CLIMATE CHANGE
& HUMAN RIGHTSFROM REACTIVE TO PROACTIVE MIGRATION GOVERNANCE: CLIMATE
DRIVEN DISPLACEMENT IN FRAGILE CONTEXTS*(WHY THE EU PACT ON MIGRATION AND ASYLUM REQUIRES A PROACTIVE APPROACH TO
CLIMATE, FRAGILITY, AND MOBILITY GOVERNANCE)*

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The entry into application of the [EU Pact on Migration and Asylum on 12 June 2026](#) marks a significant development in the evolution of the European Union's migration system. The Pact aims to strengthen external border management, asylum and screening procedures, responsibility-allocation mechanisms, and intra-EU solidarity, while ensuring compliance with fundamental rights safeguards.

Against this background, this article argues that a governance approach that remains heavily centred on border management and deterrence is insufficient to address forced displacement driven by conflict, state fragility, and the accelerating impacts of climate change.

Forced displacement, conflict, state fragility, and structural vulnerability

Evidence from the [OECD](#) (2022) shows that fragile and conflict-affected contexts account for a disproportionate share of global forced displacement, originating over 78% of forcibly displaced people and hosting around 64%. The OECD conceptualises these settings through a framework of "multidimensional interconnected fragility," characterised by the interaction of weaknesses in governance, security, and service delivery, which collectively reduce resilience and limit the capacity to manage and absorb shocks.

The Syrian conflict illustrates these

dynamics in practice. What began as political unrest in 2011 rapidly escalated into a protracted conflict marked by the breakdown of governance structures, the fragmentation of authority, and the erosion of institutional capacity. The collapse of state functions and basic services drove large-scale displacement to neighbouring countries and, subsequently, towards Europe.

This case shows that sustained displacement emerges from the long-term deterioration of governance capacity, forming the structural baseline for additional drivers, including climate change.

Climate change as a risk multiplier of forced displacement

Climate change is increasingly understood as a structural "risk multiplier" rather than an independent driver of forced displacement, as it interacts with pre-existing fragility, weak governance, and socio-economic constraints to increase vulnerability ([OECD, 2022](#); [OECD, 2023](#)). The OECD distinguishes between sudden-onset hazards, such as floods and storms, which trigger immediate displacement, and slow-onset processes, including drought, desertification, and sea-level rise, which generate cumulative and long-term "accumulating harm" that progressively erodes livelihoods. In fragile and conflict-affected contexts, where institutional capacity and

coping mechanisms are already limited, these pressures are significantly amplified.

This interaction is illustrated by the case of Darfur in Sudan, where drought, desertification, and environmental degradation intensified competition over scarce resources, contributing to conflict dynamics and displacement. The OECD highlights this case as an example of how environmental stressors and governance conditions interact in mutually reinforcing ways rather than operating separately.

OECD analysis therefore suggests that climate change reinforces existing drivers of displacement by placing additional pressure on already fragile systems, increasing both the likelihood and persistence of forced displacement.

The following Sahel and Gaza scenarios illustrate how the interaction between climate stress, fragility, and conflict may generate displacement risks, with potential implications for the broader Euro-Mediterranean region.

Compound Fragility Scenarios: Climate–Conflict Interactions and Displacement Risk**The Sahel Scenario**

The Sahel represents, in Marshall's analysis [1], a critical intersection where extreme climate stress and governance fragility converge to produce a cycle of instability. He emphasises that environmental

pressures are acute, with temperatures rising significantly faster than the global average and widespread land degradation undermining agricultural and pastoral livelihoods across the region.

These pressures interact with what Marshall characterises as weak state capacity, reducing institutional resilience and intensifying competition over scarce resources between nomadic and settled populations. In his analysis, this competition frequently contributes to localised violence and recurring instability.

Marshall further argues that corruption, coercive state practices, and unequal resource distribution undermine public trust and enable armed groups to recruit frustrated populations, reinforcing what he describes as a cycle of environmental stress and political instability.

In this context, the interaction of climate stress and governance fragility may contribute to increased population movements, with potential displacement pressures extending towards the broader Euro-Mediterranean region.

The Gaza Scenario

Gaza represents another illustration of compound fragility where climate stress, demographic pressure, and structural constraints converge to deepen vulnerability. According to [UNEP \(2020\)](#), the occupied Palestinian territory is projected by mid-century to experience temperatures rising by up to 2.6°C and rainfall declining by up to 20%, with impacts most acute in Gaza due to dependence on a highly degraded Coastal Aquifer, rapid population growth, and extreme population density.

These pressures interact with governance fragmentation linked to

the intra-Palestinian divide, which limits effective environmental management and resource governance. The [ICRC \(2023\)](#) further emphasises that a prolonged blockade and recurrent conflicts, including repeated escalations of violence, restrict access to essential materials and repeatedly damage critical water and energy infrastructure, significantly constraining adaptive capacity.

UNEP and the ICRC together show that climate stress, demographic pressure, governance fragmentation, and infrastructural constraints reinforce one another to produce systemic fragility, with implications for long-term humanitarian stress and potential displacement pressures extending beyond Gaza.

The Sahel and Gaza scenarios, taken together, highlight the limitations of reactive border governance in addressing displacement dynamics that are structural, cumulative, and increasingly upstream in nature.

Policy Implications: Towards Proactive Migration Governance

Addressing the structural drivers of displacement identified above requires governance that operates upstream — before populations are forced to move. Three complementary priorities emerge:

Expand legal and predictable mobility pathways. Bilateral Labour Agreements and structured mobility schemes should be strengthened to reduce reliance on irregular routes and ensure safer, rights-based mobility.

Strengthen social protection systems. In destination countries, this means ensuring inclusive access to basic rights, protection, and non-discriminatory treatment for displaced persons.

In countries of origin, it means expanding adaptive social protection that provides income security and other essential support during climate and economic shocks, strengthening resilience before displacement occurs.

Invest in climate adaptation and governance capacity.

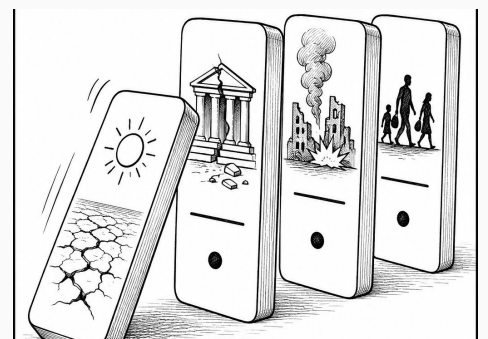
Strengthening governance effectiveness, transparency, and institutional capacity in fragile, conflict-affected, and climate-stressed contexts is essential to ensure that climate adaptation efforts translate into safer, more secure living conditions and reduce the long-term risk of forced displacement.

Conclusion

Border management alone is insufficient to address the structural conditions that drive forced displacement. As this article has shown, displacement in fragile and climate-stressed contexts emerges from the interaction of environmental stress, governance fragility, and institutional constraints — producing cumulative, long-term pressures that operate upstream of European borders. Responding effectively requires governance that integrates climate, fragility, and mobility within a coherent policy approach grounded in protection and human rights.

References

- [1] Marshall, T. (2021) *The Power of Geography: Ten Maps That Reveal the Future of Our World*. London: Elliott & Thompson.



**DIGITAL TRANSFORMATION,
BUSINESS & HUMAN RIGHTS**

ARTIFICIAL INTELLIGENCE, HUMAN CAPITAL AND INCLUSIVE DEVELOPMENT IN MIDDLE-INCOME COUNTRIES: HUMAN RIGHTS AND POLICY PERSPECTIVES

Chaima Laajili is a doctoral researcher in economics, specializing in development and public policy. Her research focuses on the interaction between technological change, human capital, and inclusive development in middle-income countries.

Artificial intelligence (AI) is rapidly transforming economies and societies across the globe. In middle-income countries, the diffusion of AI technologies presents a dual reality. On the one hand, AI offers significant opportunities to enhance productivity, improve public service delivery, and strengthen human capital through better access to education, health, and information. On the other hand, the uneven adoption of AI risks deepening existing inequalities, exacerbating labour market vulnerabilities, and undermining economic and social rights if appropriate governance frameworks are not in place.

For countries that are still navigating structural transformation and institutional consolidation, the interaction between AI and human capital development is particularly critical. Human capital remains a central driver of inclusive development, yet access to skills, education, and decent work remains highly unequal within and across middle-income economies. As recent studies emphasize, technological change does not automatically translate into broad-based welfare gains; its effects depend heavily on policy choices, institutional capacity, and social protection mechanisms (Acemoglu, 2020).

This article draws on ongoing doctoral research to provide a policy-oriented reflection on how AI affects human capital formation and inclusive development in middle-income countries, with particular attention to human rights considerations.

Artificial Intelligence, Human Capital and Human Rights: Conceptual Linkages

Human capital, encompassing education, skills, health, and productive capabilities plays a central role in shaping how societies benefit from technological change. AI can strengthen human capital by improving learning outcomes through adaptive education technologies, facilitating access to information, and enhancing productivity in both high- and low-skilled sectors. According to UNESCO (2019), digital technologies, when equitably deployed, can expand access to quality education and lifelong learning opportunities. In several middle-income countries, AI is already supporting skills development and employability. For example, Tunisia has promoted AI-powered digital learning platforms through public-private partnerships to address skills mismatches, particularly among young people and graduates. By enabling data-driven skills assessment and personalized training pathways, these tools can contribute to more effective human capital development (World Bank, 2020; OECD, 2021).

However, the benefits of AI are not automatically inclusive. AI-driven technological change tends to favour highly skilled workers while increasing vulnerability among low-skilled and informal workers (Autor, 2019). From a human rights perspective, access to education, decent work, and social protection, as recognized in the

International Covenant on Economic, Social and Cultural Rights, is essential for ensuring that individuals can benefit from technological progress. AI deployment should therefore support the progressive realization of these rights and uphold the principles of equality and non-discrimination (United Nations, 1966; OHCHR, 2021).

The International Labour Organization (2021) warns that, without adequate labour regulations and reskilling policies, AI adoption may contribute to job polarization, wage inequality, and economic insecurity. Unequal access to digital infrastructure and skills can also reinforce existing gender, regional, and income disparities.

Key Challenges in Middle-Income Countries

Middle-income countries face several structural and institutional challenges that shape the impact of AI on human capital and development.

First, the digital divide remains a major obstacle. Limited access to reliable internet connectivity, digital devices, and quality education restricts opportunities to acquire relevant skills, particularly in underserved and rural areas (World Bank, 2020).

Second, labour markets in many middle-income economies are characterized by high informality and limited social protection. As AI-driven automation reshapes production processes, vulnerable workers may face displacement without adequate access to retraining or income support (ILO, 2021).

Third, institutional capacity for AI governance remains uneven. Regulatory frameworks addressing data protection, transparency, and the ethical use of AI are often underdeveloped, increasing risks of discrimination, exclusion, and intrusive surveillance (OECD, 2019).

Finally, fiscal and policy constraints limit governments' ability to invest simultaneously in digital infrastructure, education, and social protection, risking fragmented AI adoption that reinforces existing development challenges.

While these constraints are common across many middle-income countries, the Tunisian case illustrates both the opportunities and challenges associated with AI-driven human capital strategies.

Tunisia: Structural Constraints and Emerging Opportunities

In Tunisia, the adoption of AI in education, labour markets, and public administration is shaped by persistent structural constraints, including skills mismatches, limited digital infrastructure, and regional inequalities. Despite relatively high levels of tertiary education attainment, unemployment and underemployment among graduates remain significant, limiting the effective transformation of human capital into decent and productive employment.

At the same time, Tunisia has initiated a strategic shift toward digital transformation through e-government initiatives, support for tech entrepreneurship, and digital skills development. However, unequal access to digital resources and training opportunities risks exacerbating existing social disparities, underscoring the need for targeted public policies grounded in human rights principles to ensure inclusive access to education, reskilling, and social protection.

Comparative Perspective: Lessons from Other Middle-Income Countries

Experiences from other middle-income countries further underscore these challenges. For instance, Morocco has invested in AI-related capacity building through digital education reforms and innovation ecosystems linked to industrial policy. While these initiatives have supported skills development in high-growth sectors, concerns remain regarding inclusion, especially for rural populations and informal workers. This comparison illustrates that technological adoption alone is insufficient; without complementary social and labour policies, AI-driven growth may deepen inequalities rather than reduce them.

Policy Implications and Recommendations

To ensure that AI contributes to inclusive development and respects human rights in middle-income countries, a comprehensive policy approach is required.

Investing in inclusive human capital formation. Governments should prioritize education and training systems that equip individuals with both digital and foundational skills. As emphasized by World Bank (2018), aligning education systems with technological change is essential to prevent skill mismatches and social exclusion.

Strengthening labour market institutions and social protection. AI-driven transformation must be accompanied by policies that protect workers' rights and promote decent work. This involves updating labour regulations to address new forms of work, extending social protection coverage to informal workers, and supporting active labour market policies such as reskilling and job placement programs (ILO, 2021).

Reducing digital inequalities. Targeted investments in digital infrastructure are necessary to bridge regional and socio-economic divides. Public policies should focus on expanding affordable internet access, particularly in underserved areas, and supporting small and medium-sized enterprises in adopting AI technologies responsibly.

Developing rights-based AI governance frameworks.

Middle-income countries should adopt regulatory frameworks that promote transparency, accountability, and ethical use of AI. According to OECD (2019), rights-based AI governance enhances trust and ensures that technological innovation aligns with societal values.

Enhancing international cooperation. Multilateral initiatives can support middle-income countries in designing inclusive AI strategies while respecting national development priorities and human rights commitments.

Conclusion

Artificial intelligence holds significant potential to strengthen human capital and support inclusive development in middle-income countries. However, without rights-based and well-designed policy interventions, its adoption may deepen inequalities and weaken economic and social rights. AI's developmental impact depends primarily on the institutional and policy frameworks governing its use rather than on the technology itself.

To ensure that technological progress contributes to inclusive and sustainable development, policymakers must combine innovation with strong human capital policies, digital inclusion, and rights-based governance. Embedding human rights considerations into AI strategies from the outset is essential to ensuring that technological change benefits society as a whole.

**DIGITAL TRANSFORMATION,
BUSINESS & HUMAN RIGHTS**

DIGITAL POLICY IN CONTESTED SPACES: IMPLEMENTING HEIGHTENED HUMAN RIGHTS DUE DILIGENCE IN THE DRC MINING SECTOR

Eric Tumaini Baeni is the Founder and Executive Director of the Pan-African Alliance for Business and Human Rights (PAYA-BHR). He is an emerging policy scholar at the African Institute of International Law, specializing in Business & Human Rights and conflict management. His research interests focus on digital policy and the implementation of heightened human rights due diligence within conflict-affected supply chains in Africa.

The Moral Paradox of the Digital Supply Chain

At the heart of the global digital revolution lies a profound geographic and moral contradiction. The Rubaya mining district, located in the North Kivu province of the Democratic Republic of the Congo (DRC), serves as one of the world's most critical extraction grounds for coltan, the essential mineral powering modern smartphones, electric vehicles, and artificial intelligence hardware. Yet, Rubaya exists within a severe governance vacuum. The physical authority of the Congolese state is violently contested by the M23 rebel group and various non-state armed actors, creating a volatile landscape where resource extraction directly intersects with human rights abuses, modern slavery, and conflict financing.

To date, upstream mineral resource governance on the ground has relied heavily on traditional, paper-based traceability frameworks, most notably the ITRI Tin Supply Chain Initiative (ITSCI) and regional certification schemes. However, these legacy mechanisms have proven structurally incapable of resolving the compliance crisis in contested zones. Because these frameworks depend on physical plastic tags, manual paper logging, and periodic on-site physical inspections, they are highly vulnerable to localized bribery, document falsification, and armed extortion.

As documented in the comprehensive *Global Witness*

Report on Mineral Laundering, rebel factions and corrupt middle-tier actors routinely exploit these systemic vulnerabilities to mix conflict-tainted coltan with clean minerals at local trading houses (*comptoirs*). Physical documents fail as governance tools in conflict zones because paper can always be seized, altered, or signed under duress. As Western nations transition from voluntary corporate social responsibility to mandatory legal frameworks, this enforcement gap at the point of origin has created a critical operational deadlock.

The Policy Deadlock: An Enforcement Gap in Conflict Settings

The physical absence or compromise of state authority in conflict zones does not absolve downstream multinational corporations of their international legal duties. Under emerging domestic and regional legislations such as the *German Supply Chain Due Diligence Act* (LkSG) and the *European Union's Corporate Sustainability Due Diligence Directive* (CSDDD), companies are legally required to establish robust risk management systems. In conflict-affected and high-risk areas, this standard escalates to a requirement for *Heightened Human Rights Due Diligence* (hHRDD), as defined by the *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals*.

However, operationalizing heightened diligence has reached a standstill.

International corporations argue that they cannot safely deploy personnel to conduct physical audits in active conflict zones without exposing them to extreme security risks. Concurrently, fragile host governments lack the physical capacity to permanently secure remote mining perimeters.

As highlighted in the *United Nations Security Council Final Report of the Group of Experts on the DRC*, the ongoing militarization of supply chains by armed groups prevents traditional corporate monitoring, leaving local populations unprotected and cutting off ethical artisanal miners from international legal markets.

This policy brief proposes a paradigm shift: leveraging digital policy and decentralized technology to bridge this physical enforcement gap. When a state cannot be physically present, it must deploy a digital architecture to maintain visibility, transforming data infrastructure into a tool for regulatory enforcement.

The innovation: remote sovereignty via multi-source digital triangulation

Rather than relying on physical presence or easily falsified paperwork, digital policy can enable a framework of "remote Sovereignty." This approach utilizes a shared, secure digital public infrastructure that combines high-resolution satellite imagery, artificial intelligence, and immutable blockchain ledgers to create a reliable "digital product passport" from the extraction pit to the international market, aligning with data

frameworks championed by the *World Economic Forum*.

To be effective, this digital architecture must operate through a process of multi-source digital data triangulation, completely bypassing the need for traditional paper validation:

Algorithmic satellite monitoring: High-resolution satellites continuously monitor targeted mining sites like Rubaya. Artificial intelligence algorithms analyze changes in surface topography, vegetation clearance, and heavy machinery movement to map and predict the exact volume of mineral extraction occurring on the ground, operating under the data access infrastructure of the European Space Agency's Copernicus protocols.

Automated weighing and cryptographic logging: When minerals arrive at regional sorting and washing centers, automated, calibrated scales log the weights directly onto a decentralized ledger. This data must algorithmically match the extraction volumes predicted by the satellite models.

Immutable blockchain tracking: Every transaction, transfer, and weight check is permanently recorded on a permissioned blockchain ledger. This ensures that once data enters the system, it cannot be altered, deleted, or backdated by any corporate middleman or state official, establishing a standard of cryptographic integrity outlined in recent UNCTAD development frameworks.

By generating this unalterable information baseline, a fragile host state actively exercises its regulatory authority. It creates a secure digital public good that downstream international buyers can access to fulfill their heightened diligence obligations, proving that a zone cannot be deemed un-auditable

simply because it is physically inaccessible.

Mitigating risks: safeguarding data in hostile environments

Deploying technology in a conflict zone introduces significant operational risks, primarily the threat of data manipulation at the source a problem commonly known as “garbage in, garbage out.” If an armed group controls a mining site, they could theoretically force local operators to log fraudulent data into the blockchain.

To safeguard the integrity of the digital framework against hostile actors, the system must integrate clear policy and technical protections:

Distributed Network Governance: The blockchain network should not rely on a centralized government server vulnerable to seizure or hacking. Instead, data nodes should be distributed across a permissioned network of stakeholders, including artisanal mining cooperatives, international civil society organizations, and independent auditors. This decentralized structure prevents any single armed group or corrupt official from altering the ledger, aligning with the governance principles of ISO/TS 23635.

Cryptographic and biometric authentication: Cooperative agents entering data should use hardware-secured cryptographic keys linked to biometric identifiers. This creates a tamper-resistant audit trail that connects each entry to a specific individual, strengthening accountability and deterring coercive falsification.

Polycentric contingency plans: During severe infrastructure failures or network outages, governance of the digital ledger should automatically transfer to an international multi-stakeholder trust. Including organizations such as the ICGLR and independent civil society

groups, this trust ensures operational continuity and prevents legitimate artisanal miners from being excluded from the formal global economy, supporting the African Union Critical Minerals Development Framework.

Actionable Policy Recommendations for the Geneva Community

To bridge the gap between academic innovation and practical human rights protection, the international community should champion the integration of digital policy into global sourcing standards:

Define digital admissibility standards: The UN Working Group on Business and Human Rights, in coordination with regulators, should establish clear guidelines on the legal admissibility of cryptographic and satellite supply chain data. This would provide corporations and courts with a predictable framework for using digital evidence to demonstrate compliance with heightened due diligence standards.

Invest in digital public infrastructure: International development partners should redirect funding from ineffective paper-tagging programs toward building digital public infrastructure in fragile states. This includes financing secure biometric logging hardware, expanding access to satellite data, and training local mining cooperatives in digital literacy, consistent with the ITU Global Digital Compact Policy Framework.

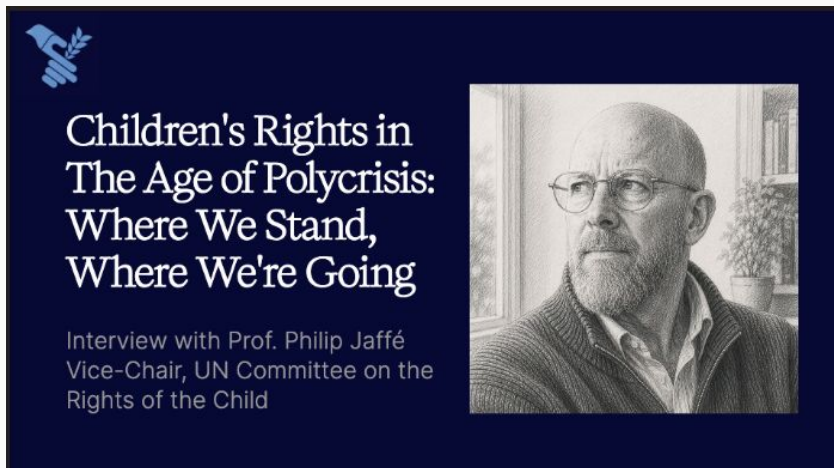
Support polycentric governance models: Policymakers should promote legal frameworks that recognize multi-stakeholder digital trusts. Enabling international civil society and regional organizations to co-manage supply chain data alongside fragile host states would help safeguard transparency in critical mineral supply chains, even during political crises.

EVENT & NEWS

Launching Insights:

A New Video Interview Series

We are pleased to announce the launch of [Insights](#), our new video interview series. Dedicated to humanising human rights discussions and amplifying diverse voices, Insights features in-person conversations with leading experts, advocates, and changemakers who live or work in Geneva. Through these interviews, we aim to foster informed public dialogue and highlight the perspectives of those shaping international human rights standards and mechanisms.



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Editorial

This edition of the *Human Rights Chronicle* was prepared by *Martina Paoletti*, with the support of *Angélica Samaniego Arbide*, *Catia Trevisani* and *Fabrice Crégut*. Graphic design support was provided by *Chai Chai*.

Credits



IMPORTANT EVENTS

[First United Nations Global Dialogue on AI Governance](#)

6-7 July | Palexpo, Geneva & Online

Governments, international organizations, the private sector, academia, and civil society will convene to discuss international cooperation on artificial intelligence and explore inclusive approaches to ensuring that the benefits of AI are shared while addressing emerging risks.

[Commemorative Event Marking the 75th Anniversary of the 1951 Refugee Convention](#)

28 July, 16:00–18:00 | Palais des Nations, Geneva

Organized by UNHCR, this commemorative event will mark the seventy-fifth anniversary of the 1951 Refugee Convention and reflect on its enduring importance in protecting the rights of refugees and strengthening the international refugee protection regime.

[A Future We Choose: Advancing Science-Policy Dialogue for System Transformations Based on the GEO-7 Report](#)

27 August, 9:00-16:30 | Campus Biotech, Geneva

Organized by the Geneva Environment Network and UNEP, this event will bring together experts, policymakers, and civil society representatives to explore how science-policy partnerships can support transformative responses to climate change, biodiversity loss, and pollution.

[2nd Annual Conference of the Hoffmann Centre for Global Sustainability](#)

3–4 September | Domaine Barton, Geneva

Hosted by the Hoffmann Centre for Global Sustainability (Graduate Institute), the conference will convene experts from academia, policymaking, finance, and civil society to explore innovative approaches to sustainability, climate governance, and global systems transformation.