



# JOURNAL

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No. 1/2026 | February 2026

## **From Landmines to Algorithms: Reimagining Arms Control Diplomacy in a Multilateral World?**

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Over the last few years, the debate among arms control scholars and practitioners has shifted toward a major challenge: how to design an effective and adaptable arms control framework in the era of emerging technology, specifically Artificial Intelligence (AI). Unlike conventional weapons, many emerging technologies bring unique complications because of their 'dual-use' nature and the ability to process information at speeds that go far beyond human thinking. This situation leads to a significant question: How can we use lessons from history to shape a strong arms control regime in a world driven by AI? Furthermore, how should Thailand position itself to shape this evolving global security architecture?

If we have to seek a historical case study of arms control negotiations, the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines (the Ottawa Treaty) stands out as an essential case deserving of further examination. It demonstrates how middle-power countries, working alongside Transnational Advocacy Networks (TANs)<sup>2</sup>, found a way to bypass the

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<sup>2</sup> Transnational Advocacy Networks (TANs) in the context of international relations are defined as groups of advocates—including nongovernmental organizations, international organizations, and academia—who leverage shared principles and arguments to drive political change. For further details about the evolution of the theoretical framework surrounding the concept of TANs, please see R. Charli Carpenter, "Setting the Advocacy Agenda:

stalemate created by the Great Powers. This effort eventually led to a binding treaty that more than 150 nations have now joined.

Of course, there are clear technical differences; landmines are tangible, kinetic weapons, while AI is a dual-use technology woven into digital networks. Still, the political side of the story is remarkably similar. The "Ottawa Process" showed that non-governmental organizations (NGOs) could change how the world viewed anti-personnel landmines, shifting them from being seen as a 'military necessity' into a 'humanitarian taboo.' For those currently struggling with AI governance, this is a major lesson. While many NGOs today are trying to partner with governments to push forward more concrete negotiations, they have yet to reach a binding or solid result. Thus, understanding how NGOs and states collaborated to accelerate progress during the landmine negotiations offers a valuable lesson for both scholars and practitioners designing an arms control architecture in an era driven by AI technology.

Anti-personnel landmines are essentially designed to explode upon physical contact, a trait that makes them inherently indiscriminate. They simply cannot distinguish between an active combatant and a civilian bystander. Because they fail to differentiate between targets—a reality that many argue breaks the fundamental rules of International Humanitarian Law—and given the long-term struggle of clearing them after a war, landmines have remained a major point of tension in arms control debates since the Second World War ended.<sup>3</sup>

Prior to October 1996, the international community relied on two existing mechanisms to negotiate arms control framework on landmines. The first platform was the Convention on Certain Conventional

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Theorizing Issue Emergence and Nonemergence in Transnational Advocacy Networks,” *International Studies Quarterly* 51, no. 1 (March 2007): 101-103.

<sup>3</sup> ICRC, “Banning Anti-Personnel Mines: The Ottawa Treaty Explained”, International Committee of the Red Cross (Geneva, Switzerland, 1998), [https://www.icrc.org/sites/default/files/external/doc/en/assets/files/other/icrc\\_002\\_0702\\_ottawa\\_explained.pdf](https://www.icrc.org/sites/default/files/external/doc/en/assets/files/other/icrc_002_0702_ottawa_explained.pdf)

Weapons (UN CCW). While this served as the default legal instrument, it proved incapable of delivering a genuine control regime. The limitations became obvious during the May 1996 Review Conference. That meeting produced only "Protocol II," a document containing slight technical adjustments rather than substantive change. The failure was structural. The CCW operated on a strict consensus model, which meant that meaningful progress was impossible as long as a single member state opposed it.<sup>4</sup>

The Conference on Disarmament, or CD, served as the second potential platform for negotiations. Major powers like the United States, France, and the United Kingdom actually preferred this venue because it operated on a strict consensus basis.<sup>5</sup> This rule essentially gave every member state a veto. In practice, just one dissenting voice could stop a comprehensive ban from moving forward. That dynamic kept global landmine negotiations paralyzed in a diplomatic stalemate for years.

Canada eventually intervened to solve this problem by launching the Ottawa Process in October 1996. Unlike the slow pace of the CD, this alternative pathway gathered momentum quickly through a series of key meetings in Vienna, Brussels, and Oslo during 1997.<sup>6</sup> In addition, The International Campaign to Ban Landmines (ICBL) was the engine behind this progress. By organizing advocacy efforts across borders, this coalition of NGOs successfully persuaded governments to secure a binding agreement to prohibit the production and deployment of anti-personnel mines.<sup>7</sup>

The operational influence of NGOs in pushing the treaty negotiations can be categorized into three distinct mechanisms:

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<sup>4</sup> Stuart Maslen and Peter Herby, "An International Ban on Anti-Personnel Mines: History and Negotiation of the 'Ottawa Treaty,'" *International Review of the Red Cross* 38, no. 325 (December 1998): 693–713.

<sup>5</sup> Beth A. Fischer, "The United States and the Ottawa Process," *Canadian Foreign Policy Journal* 5, no. 3 (1998): 51–68; David Long and Laird Hindle, "Europe and the Ottawa Process: An Overview," *Canadian Foreign Policy Journal* 5, no. 3 (1998): 69–83.

<sup>6</sup> Maslen and Herby, "An International Ban on Anti-Personnel Mines," 693–698.

<sup>7</sup> Maslen and Herby, "An International Ban on Anti-Personnel Mines," 707–712.

First, NGOs functioned as "norm entrepreneurs"<sup>8</sup> by creating and diffusing expert knowledge. Before Ottawa, governments tightly controlled military data. That monopoly ended when NGOs started releasing their own technical assessments to challenge the arguments about "military necessity" in deploying mines. NGOs in the ICBL such as the Vietnam Veterans of America Foundation and Human Rights Watch conducted technical analysis question whether landmines actually provided any significant tactical value.<sup>9</sup>

At the same time, Physicians for Human Rights and Human Rights Watch worked to reframe the entire issue. They moved the debate away from national security and treated it as a public health crisis. By presenting field work data from Cambodia, they proved that civilians made up the vast majority of casualties.<sup>10</sup> This evidence forced a shift in the cost-benefit analysis. It became clear to both policymakers and the public that the humanitarian damage far outweighed the limited utility of anti-personnel landmines on the battlefield.

Civil society groups also managed to secure a seat at the negotiating table. During early meetings in Vienna and Bonn, NGO representatives were allowed to circulate legal drafts and critique government proposals in real time. The ICBL and the International Committee of the Red Cross essentially acted as technical consultants during this phase. They worked directly with the pro-ban states, notably Canada,

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<sup>8</sup> Norm entrepreneurs are defined as individual or organizational agents who actively construct and champion new standards of appropriate behavior through empathy and deep ideational commitment rather than material self-interest. Operating primarily in the initial "emergence" stage of the norm life cycle, they drive political change by utilizing persuasion and strategic framing to convince a critical mass of states to adopt these new international norms. Please see further details about the stages of norm diffusion in Finnemore, Martha, and Kathryn Sikkink. "International Norm Dynamics and Political Change." *International Organization* 52, no. 4 (1998): 887–917. <https://doi.org/10.1162/002081898550789>.

<sup>9</sup> Maxwell A. Cameron, "Global Civil Society and the Ottawa Process: Lessons from the Movement to Ban Anti-Personnel Mines," *Canadian Foreign Policy Journal* 7, no. 1 (1999): 85–102, <https://doi.org/10.1080/11926422.1999.9673202>.

<sup>10</sup> Physicians for Human Rights, "For Our Work to Ban Landmines, PHR Shared the Nobel Peace Prize," Physicians for Human Rights, <https://phr.org/issues/weapons/prohibited-weapons/landmines/>.

Austria, and Norway to formulate and develop the drafted proposal.<sup>11</sup> This access allowed them to do more than just campaign; they helped build the legal framework of the ban from the inside.

These organizations also knew how to use domestic politics to corner reluctant governments. They put pressure from both international and local levels, and it proved highly effective against major European powers. For instance, Handicap International mobilized enough public outrage regarding civilian injuries to alter the government's political calculation. The internal pressure eventually forced Paris to drop its support for the stalled Conference on Disarmament and back the Ottawa Process.<sup>12</sup> This demonstrates how civil society can actually change national strategy by mobilizing public sentiment.

The success of the mine ban treaty rested on three specific levels: acting as norm entrepreneurs, providing technical drafting support, and using domestic pressure to shift the position of military powers. Thus, the lesson from the Ottawa Process is about the efficiency of the partnership between civil society and middle powers. By combining technical expertise with field data, these groups turned a loose network into a disciplined diplomatic coalition. This partnership successfully reshaped public perception of humanitarian costs and provided the necessary support to formulate a binding international law.

When we apply the Ottawa model to current negotiations on AI-enabled weapons, the influence of civil society appears significantly weaker. The primary NGOs or TANs in the realm of Lethal Autonomous Weapons Systems is the Campaign to Stop Killer Robots (CSKR). This transnational coalition gathers NGOs, academic institutions, and activists to call for a preemptive ban. Since its launch in 2013, the Campaign has worked to educate and shape public perception of the negative impacts from AI-enabled weapon systems. Major players like Human Rights Watch, the International Committee for Robot Arms

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<sup>11</sup> Maslen and Herby, "An International Ban on Anti-Personnel Mines," 700-701.

<sup>12</sup> David Long and Laird Hindle, "Europe and the Ottawa Process: An Overview," 75.

Control, and Amnesty International have anchored these efforts. Yet even after a decade of advocacy, they have failed to replicate the rapid diplomatic breakthrough seen with the Ottawa Treaty.

This relative stagnation comes down to three structural deficiencies. The first challenge lies in knowledge creation. The Campaign faces challenges from credibility gap, because the harm caused by landmines was demonstrable and visible, but the threat from autonomous weapons remains entirely anticipatory. Opponents of a ban have effectively argued that the Campaign's narrative is overly futuristic or alarmist.<sup>13</sup> Because the movement focuses on a total ban, critics claim it ignores the strategic and defensive advantages of AI integration. This allows military powers to dismiss the movement as disconnected from the realities of modern deterrence.

The partnership between states and NGOs also remains much weaker this time around. The Campaign has secured support from the Non-Aligned Movement and Austria within the Group of Governmental Experts, but it has failed to fracture the consensus among the Great Powers. This stands in sharp contrast to the Ottawa Process. In that instance, public pressure forced NATO allies like France and the UK to break away from the US position. The AI campaign has not successfully persuaded any P5 nation or major military developer to shift their preference away from the consensus-bound UN CCW framework.

Perhaps the most critical issue is internal fragmentation. Recent scholarship highlights a clash of organizational cultures between the key pillars of the Campaign. There is distinct friction between the loose, debate-heavy culture of the academics and roboticists at ICRAC and the hierarchical discipline of large advocacy bodies like Human Rights Watch. This cultural divide has manifested as a strategic conflict over how to frame the agenda. Campaign leadership has insisted on a strict "Humanitarian Disarmament" frame

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<sup>13</sup> Elvira Rosert and Frank Sauer, "How (not) to Stop the Killer Robots: A Comparative Analysis of Humanitarian Disarmament Campaign Strategies," *Contemporary Security Policy* 42, no. 1 (2021): 4–29

that focuses exclusively on civilian protection and International Humanitarian Law. As a result, they pressured ICRAC experts to drop arguments related to global security and arms races because they deemed them less emotionally resonant.<sup>14</sup> This enforced simplification alienated parts of the expert community who argue that ignoring the geopolitical instability caused by AI weakens the overall argument. The movement effectively speaks with a fractured voice as it struggles to balance technical nuance with mass-market sloganeering.

The comparison between the 1997 Ottawa Treaty and the current impasse on autonomous weapons reveals a critical diplomatic insight. The Ottawa Process succeeded because the expert community and the advocacy community were structurally aligned with several middle powers such as Canada and Norway. They presented a unified front that offered states both the moral imperative to act and the technical cover to do so. The current movement to ban lethal autonomous weapons systems suffers from a cohesion deficit. The internal fragmentation between academic nuance and campaign messaging has severely blunted the diplomatic impact of civil society. Thus, internal coherency and strong partnership with like-minded states are critical attributes for NGOs to successfully push forward arms control negotiation.

Thailand, as a state party to the Ottawa Convention and steadfast advocate of many arms control regimes such as Southeast Asian Nuclear-Weapon-Free Zone Treaty (SEANWFZ) and the Treaty on the Prohibition of Nuclear Weapons (TPNW), should play a significant role in supporting the activities of human disarmament TANs and NGOs, enabling them to function well in constructing knowledge and forging strong partnership with governmental sector.

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<sup>14</sup> Matthew Breay Bolton and Cayman C. Mitchell, “When Scientists Become Activists: The International Committee for Robot Arms Control and the Politics of Killer Robots,” in *Global Activism and Humanitarian Disarmament*, ed. Matthew Breay Bolton et al. (London: Palgrave Macmillan, 2020), 27–51.

Taking the case of anti-personnel mine as an example, Thailand's leading body responsible for demining activities is Thailand Mine Action Center (TMAC). TMAC has been playing a pivotal role in the clearance of mining to ensure Thailand's compliance with the Ottawa Treaty. TMAC also worked with several NGOs such as Norwegian People's Aid (NPA), Thai Civilian Deminer Associations (TDA), and the Peace Road Organization Foundation (PRO).<sup>15</sup>

Since 2000, NPA has been working in Thailand to conduct the national Landmine Impact Survey, provide technical advice on mine clearance operations, and update information to Thai authority. This reflects how NGO play its role as creating knowledge, information, and data to support government and military operations in clearing anti-personnel landmine.

The landmine case offers a positive precedent, but the current reality regarding autonomous weapons is different. The role of NGOs and Thailand in these negotiations remains limited. The issue is often viewed as distant from core foreign policy interests, and the diplomatic corps currently lacks the deep technical expertise needed to navigate such complex regulations.

Thailand needs to bridge this gap by applying the structural lessons of the Ottawa Process to the digital age. The history of the Thailand Mine Action Center proves that the state does not need to work in isolation. The agency has collaborated with NGOs such as Norwegian People's Aid for technical surveys on landmines, and a similar model could work today.

The Ministry of Foreign Affairs should actively cultivate a domestic and transnational epistemic community focused on the impact of AI on international security. This would entail establishing a formal working group that unites national and foreign robotics experts, legal scholars, and humanitarian NGOs. A

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<sup>15</sup> Mine Action Review, "Thailand: Clearing the Mines 2016," in *Clearing the Mines 2016* (London: Mine Action Review, 2016), 195, <https://www.mineactionreview.org/assets/downloads/Thailand.pdf>.

partnership of this kind would give diplomats the technical confidence they need. It would allow them to move beyond ambiguous statements and instead propose specific regulations regarding human control in weapon systems.

Thailand is also uniquely positioned to act as a normative bridge-builder within ASEAN. Regional discussions on Lethal Autonomous Weapons Systems remain reactive at the moment. Bangkok could change this dynamic by hosting a regional forum on AI Governance in Defense in the form of track 1.5 dialogue. Inviting civil society to the table would mirror the inclusive nature of the Ottawa Core Group. The goal should be to foster a distinct ASEAN perspective that balances security needs with humanitarian safeguards. This would help Thailand create a coalition of the willing within the Global South and prevent the global debate from being entirely dominated by the geopolitical competition between the United States and China.