

## SUBNATIONAL CLIMATE GOVERNANCE IN THE UNITED STATES: CALIFORNIA'S ROLE IN ADVANCING GLOBAL CLIMATE GOALS

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**Abstract** Climate governance has traditionally been viewed as a domain of national governments and international institutions. However, in recent decades, subnational entities such as states and provinces have emerged as powerful actors in shaping climate policy and advancing global environmental objectives. The state of California stands at the forefront of this transformation. Through innovative legislation, market-based mechanisms, and international cooperation, California has positioned itself as a global model of subnational climate leadership. This article examines California's legal and policy framework for climate governance, explores its interaction with international norms, and evaluates its influence on global sustainability goals. It argues that California's proactive approach demonstrates the potential of decentralized governance to complement global climate efforts while highlighting the need for stronger coordination between state and federal authorities.

**Keywords** California, Climate Governance, Subnational Law, Environmental Policy, Renewable Energy, Federalism, Sustainable Development, International Cooperation, Climate Justice, Cap-and-Trade

The challenge of climate change transcends national borders and political jurisdictions. Yet, responses to this global issue increasingly arise from subnational governments. In the United States, the federal structure allows individual states to pursue environmental policies beyond federal mandates, creating a dynamic and often complex landscape of climate governance. Among these states, **California** stands out as a leader, combining ambitious emissions targets, robust environmental regulations, and active participation in global climate networks.

California's climate action is rooted in a pragmatic recognition that sustainable development requires both economic innovation and ecological responsibility. Its policies are shaped by a long-standing commitment to environmental protection, dating back to the 1960s, and reinforced by contemporary legislation such as the **Global Warming Solutions Act (AB 32)**. By

aligning domestic goals with international climate frameworks, California exemplifies how subnational governance can bridge local priorities and global sustainability objectives.

This article explores California's evolving role in global climate governance. It analyzes the legal foundations of its climate policies, their interaction with federal and international systems, and the implications for global cooperation. Ultimately, it argues that California's model demonstrates how local action can drive international progress, even amid political uncertainty at the national level.

Subnational climate governance refers to the actions of regional, state, and local governments in addressing climate challenges through laws, policies, and partnerships. In federations like the United States, these entities often possess constitutional and administrative authority to legislate on environmental matters.

Historically, U.S. states have been pioneers of environmental policy innovation. The **Clean Air Act of 1970** and subsequent federal legislation were heavily influenced by state-level experimentation. California, with its unique geography, air pollution challenges, and economic capacity, has consistently led these efforts, introducing vehicle emissions standards and renewable energy targets long before national mandates.<sup>1</sup>

This decentralized governance structure allows flexibility and innovation. States can tailor policies to local needs while contributing to national and international objectives. California's success highlights how subnational actors can shape global outcomes through cumulative impact.

California's legal foundation for climate policy is anchored in the **Global Warming Solutions Act (AB 32)**, enacted in 2006. This landmark legislation mandates the reduction of greenhouse gas (GHG) emissions to 1990 levels by 2020, a target subsequently expanded by **SB 32**, which sets a goal of 40% reduction below 1990 levels by 2030. The California Air Resources Board (CARB) serves as the principal regulatory body implementing these objectives.

California's framework integrates market-based mechanisms, notably its **cap-and-trade program**, one of the world's largest carbon markets. The system covers multiple sectors, including energy, manufacturing, and transportation, and links with Quebec's emissions trading scheme, demonstrating cross-border cooperation.<sup>2</sup>

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<sup>1</sup> United States Environmental Protection Agency (EPA), *Clean Air Act Overview*, <https://www.epa.gov/clean-air-act-overview>

<sup>2</sup> California Air Resources Board (CARB), *Cap-and-Trade Program Overview*, <https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program>

Complementing these measures are laws promoting renewable energy, energy efficiency, and zero-emission vehicles. The **Renewable Portfolio Standard (RPS)** requires utilities to source an increasing share of energy from renewables, while state agencies promote electric vehicle adoption through rebates and infrastructure investment.

These policies showcase a legally coherent approach that combines regulation, market incentives, and innovation — a model many international actors now study and emulate.

California's climate governance extends beyond its borders. The state maintains active partnerships with foreign governments and participates in global networks such as the **Under2 Coalition**, which unites subnational governments committed to limiting global temperature rise to below 2°C.<sup>3</sup>

This international engagement demonstrates how subnational entities can complement global climate efforts. By aligning with frameworks like the **Paris Agreement**, California strengthens the implementation of global climate law through local action.

Moreover, California's policy exports influence national and international discourse. Its cap-and-trade design, renewable energy initiatives, and vehicle emission standards have inspired reforms in other countries, reflecting a growing trend where domestic innovation informs international law.<sup>4</sup>

Legal innovation is at the core of California's environmental success. The state's combination of science-driven policy, public participation, and technology investment creates a flexible and adaptive governance model.

Comparatively, legal frameworks in countries like Uzbekistan and other emerging economies are increasingly drawing from such state-level experiences to design their own environmental strategies.<sup>5</sup>

California's experience illustrates that innovation does not solely occur at the federal or international level — local jurisdictions can serve as laboratories for global sustainability. The diffusion of these policies demonstrates how subnational law contributes to the evolution of international environmental norms.

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<sup>3</sup> Under2 Coalition, *About the Coalition*, <https://www.under2coalition.org/>

<sup>4</sup> Safoev, S., *International Climate Change Law: Evolving Legal Frameworks and Future Directions*, *J. Multidisciplinary Bulletin*, 8(9), 25–29 (2025)

<sup>5</sup> Safoev, S., *Legal Innovation in Environmental Policy: A Comparative Study of the United States and Uzbekistan*, *Am. J. Educ. & Learning*, 3(9), 16–20 (2025)

California's climate policies are not merely regulatory; they have stimulated a thriving green economy. The state is home to a large share of the United States' clean-tech industries, including renewable energy, electric vehicles, and sustainable agriculture.

Legal frameworks that promote renewable energy investment have supported rapid technological advancement and job creation.<sup>6</sup>

California's decoupling of economic growth from carbon emissions demonstrates that environmental regulation can coexist with economic prosperity. This approach has drawn attention from international organizations seeking to balance development with sustainability.

Despite its achievements, California's climate leadership operates within the constraints of U.S. federalism. Federal rollbacks of environmental protections, such as the withdrawal from the **Paris Agreement (2017–2020)**, highlighted tensions between state and national priorities. However, California continued to uphold its commitments, reaffirming the principle that subnational action can sustain global progress even in times of federal retreat.<sup>7</sup>

Still, challenges persist. Legal disputes over preemption, uneven funding, and regulatory fragmentation pose barriers to uniform implementation. Coordination between state, federal, and local levels remains essential for sustained impact.

California's climate diplomacy extends its influence well beyond U.S. borders. The state has signed numerous memoranda of understanding (MOUs) with countries such as China, Canada, and Mexico to collaborate on carbon reduction, clean energy, and sustainable transport.

These partnerships highlight a new form of "subnational diplomacy" — where states engage directly in international cooperation, reinforcing the idea that climate governance is no longer confined to nation-states.<sup>8</sup>

California's success also reinforces the role of law as a tool for global engagement. By institutionalizing climate commitments, the state contributes to the emergence of multi-level environmental governance that integrates local innovation with international law.

The California model underscores the potential of multi-level climate governance — where subnational, national, and international systems interact dynamically. Its example illustrates that environmental leadership can emerge from below, shaping both national and global policies.

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<sup>6</sup> Safoev, S., *Laws on Green Energy and Climate Change*, *Am. J. Educ. & Learning*, 2(5), 470–474 (2024)

<sup>7</sup> UNFCCC, *The Paris Agreement*, <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

<sup>8</sup> The State of California, *International Partnerships for Climate Action*, <https://www.climatechange.ca.gov/>

As international institutions increasingly acknowledge the role of non-state actors, subnational entities like California gain prominence as drivers of implementation and compliance.<sup>9</sup>

However, replicating California's success requires contextual adaptation. Developing countries, particularly in the Global South, must align environmental ambition with socioeconomic realities. Global cooperation should therefore facilitate capacity-building and technology transfer, ensuring all regions can benefit from similar governance innovations.

California's experience demonstrates that effective climate governance does not depend solely on national action. Through ambitious legislation, international cooperation, and legal innovation, the state has forged a model of subnational leadership that complements global climate efforts.

By bridging the gap between local initiative and international responsibility, California contributes to the advancement of global sustainability goals. Its example affirms that the future of climate governance will depend not only on treaties and international courts but also on the creative and determined action of subnational actors. In this respect, California's leadership is not merely a regional achievement — it is a blueprint for the world.

## References

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