INSIDE CLIMATE ADVOCACY

A STUDENT'S GUIDE

Authored by:
Sarina Virmani

WHAT YOU DO MAKES A DIFFERENCE, AND YOU HAVE TO DECIDE WHAT KIND OF DIFFERENCE YOU WANT TO MAKE

– Dr. Jane Goodall, Scientist & Activist

CONTENTS

PART 1 CLIMATE SCIENCE

06 The Science Behind Climate Change
09 Local Climate Impacts in Practice
11 Understanding Climate Policy Language
14 Permitting and Zoning Explained

PART 2 THE POLICY PROCESS

17 The Policy Pathway: From Idea to Implementation
24 Identifying Stakeholders
25 State Case Study: Virginia
27 National Climate Policy
30 Policy Snapshots from Around the Country

PART 3 ALL ABOUT ADVOCACY

33 How to Build Change Locally
38 Research as Advocacy: Building Credibility
41 Lobbying & the Ask
43 Voices from the Field: Advocate Interviews
45 Common Challenges and How to Handle Them
47 Closing
49 References

INTRODUCTION

In 2025, climate change showed up in a major way. From monsoon flooding across South and Southeast Asia to incessant heatwaves in Europe and North America, the pattern was hard to ignore: climate change is reshaping daily life.

It's easy to feel powerless. Grappling with climate concerns can almost feel like a ***lost cause.*** A lot of the time, decisions are made by officials far removed from the environmental realities in our communities. At the same time, many people haven't been given clear information about local impacts, their personal footprints, or what actions can actually make a difference.

But the impacts are real either way. Decisions made in local, state, and federal government inevitably shape the air we breathe, the water we drink, the place we live, and the very health of our communities themselves. One thing is for certain: climate impacts are not abstract, they are local and affect us every single day.

This book is about bridging the gap between policymakers and the public by providing a step-by-step guide on how any individual can become a climate advocate. It is written for students, young advocates, and anyone who wants to learn how ordinary people can influence policy decisions.

What makes this book different is that it's built for action, organized in three fundamental parts. Part One covers climate science, with clear explanations of local impacts and the language you need to engage in policy discussions. Part Two explains how policy moves from idea to implementation, key stakeholders, and how decisions play out in specific states and across the country. Part Three is all about using your voice, featuring interviews from youth advocates and climate leaders, practical organizing strategies for students, and tools you can use in your own community. What makes this book different is that it's built for action. Each section includes practical tools, clear examples, and is grounded in real advocacy.

If you take one thing from this book, I hope it is this: climate policy does not start in the Capitol. It starts with you. When you understand how the policy process works, I have no doubt that you will be able to truly catalyze change.

PART 1

CLIMATE SCIENCE

WHAT IS CLIMATE CHANGE?

Earth's temperature has risen 1.1 degrees Celsius since the late 19th century. That may not seem like very much but on a global scale, it's *massive* - adding enough heat to warm every ocean, lake, river, and tributary on the planet by a full degree at the same time.

1.1 degrees Celsius is also an average measurement. Some areas experience more warming, while others experience less. That's because climate change is a measure of the long-term shifts in average climate conditions. The fact that Earth's global average temperature is about 1.1°C higher than the pre-industrial baseline is one of the clearest indications that climate change is already in effect.

One of the biggest misconceptions about climate change is that it is only caused by human activity. While the Intergovernmental Panel on Climate Change (IPCC) has concluded that human activity is the main contributor to climate change, it is undeniable that volcanic eruptions, solar variations, and ocean-atmosphere cycles can cause lengthy shifts in the climate.

Earth's climate has always changed over time, even long before humans inhabited the planet. But modern climate change is different: human activities, especially greenhouse gas emissions, have rapidly accelerated warming.

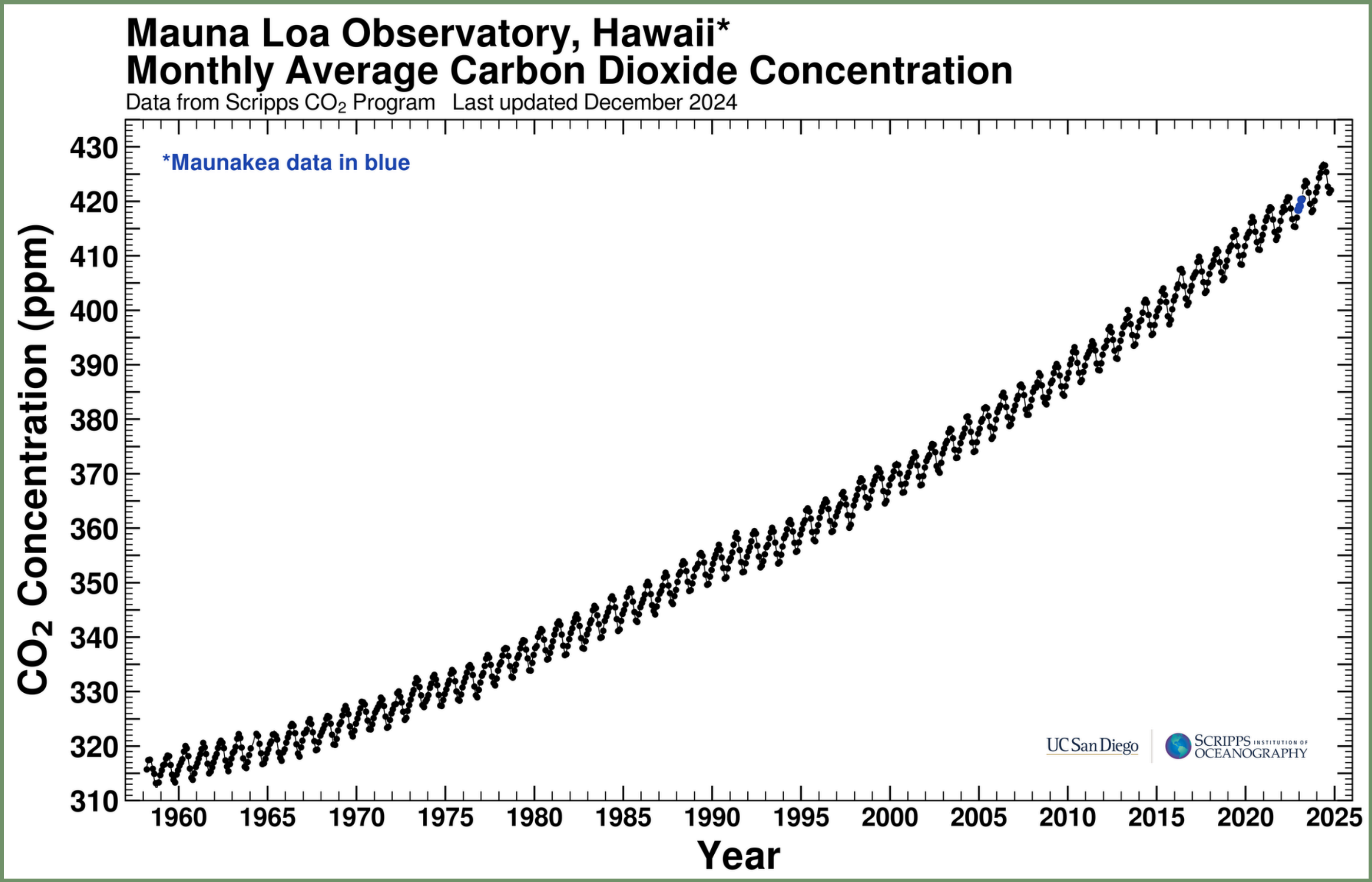
Greenhouse gas emissions are the gases humans release that trap heat in the atmosphere. They act as an "insulating layer", driving the accelerated warming of the planet.

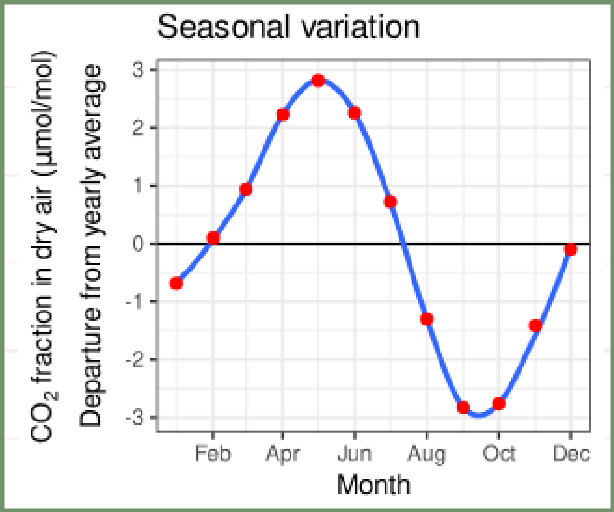
Greenhouse Gases Examples:

- Carbon dioxide is emitted from burning coal, oil, & gas and from deforestation
- Methane is emitted from oil and gas leaks, landfills, and livestock
- Nitrous oxide is emitted from fertilizers and some industrial processes

THE KEELING CURVE

The Keeling Curve graphically displays CO_2 measurements that are continuously taken at the Mauna Loa Observatory in Hawaii (from 1958 to the today). This location was chosen because its high elevation ensures scientists are measuring clean air that is indicative of global conditions.





The Keeling Curve represents concrete evidence that greenhouse gas concentrations are increasing. Northern Hemisphere plants extract CO_2 out of the air in spring and summer and release more in fall and winter, resulting in the slight variations that are seen. However, the overall trend is that the concentration is increasing.

THE CONSEQUENCES

The impact of increased temperatures is altering Earth's living conditions.

- Thawing of Glaciers --> Rising Sea Level & Albedo Effect
    - ***Albedo Effect:*** Light-colored surfaces (high albedo) reflect more incoming sunlight, so they absorb less heat. Dark surfaces (low albedo) absorb more sunlight, so they warm more. Ocean water is darker than ice, so it absorbs more sunlight.
- Increased Flooding --> By 2100, the global average sea level is estimated to rise **15-90** centimeters higher than the current level.
- Intensified Storms --> With higher temperature, more hurricanes can form (they require a base temperature of 26.51 degrees Celsius)
- Desertification --> Increased temperatures increase evaporation of moisture in soil, creating land that is more "desert-like" and less arable.

These ecological consequences have implications for humans as well. Some examples are below:

- Lower crop yields from desertification raise food prices, resulting in increased starvation
- Sea level rise and extreme flooding can force people to relocate
- Intensified storms can damage infrastructure and power grids

Yet each community experiences climate change in its own way. To explore these climate stories, continue to the next section.

NEXT PART

CASE STUDIES

PAKISTAN

From July to August 2022, large parts of Pakistan experienced record amounts of rainfall. Specifically, the provinces of Sindh and Balochistan each experienced 7 to 8 times their normal levels. The resulting floods impacted 33 million people, destroying 1.7 million homes. The situation was officially declared a “national emergency”.

CAPE TOWN

In 2018, Cape Town residents were suffering from the largest drought in their history. The drought seriously threatened the water supplies of the town. The city was heading *fast* to “Day Zero” - the day where the city wouldn’t have enough water to sustain its population. The town adapted by banning swimming pools, setting up water “ration” stations, and implementing new infrastructure.

GREAT BARRIEF REEF

The northern and southern parts of the Great Barrier Reef in Australia are experiencing coral deterioration. Coral bleaching occurs when ocean temperatures become too hot, causing corals to eject algae. This algae gives corals energy (the energy they need to create color). Coral bleaching fosters weaker ocean ecosystems and lower biodiversity.

CASE STUDIES

KIRIBATI

Kiribati is facing the risk of being submerged. Some islands have already been submerged by rising sea levels and shorelines are shrinking each year. The Kiribati government has purchased land in Fiji for relocation. New Zealand also accepts a limited number of Kiribati citizens each year. The future of Kiribati looks bleak and it may become the first nation to sink due to climate change.

VENICE

Venice is especially vulnerable to rising sea level, as canals already fill its streets. Venice has also been sinking due to the pumping of freshwater from an aquifer below the city. However, Venetians are innovating. They constructed the MOSE barrier system that employs gates to block high tides, preventing excessive flooding and damage to historical buildings.

MAUI

In 2023, Lahaina, Maui faced a crippling wildfire. Although it started with a fallen powerline, it spread quickly due to strong gap winds coupled with the effects of Hurricane Dora. Additionally, prior to the fire, a severe drought dried vegetation, providing “fuel for the fire”. The winds, drought, and hurricane together turned a small fire into a disastrous event.

NEXT PART

POLICY LANGUAGE

IN CLIMATE POLICY, LANGUAGE IS **POWER.**

If you have ever seen a climate plan or “pledge” that schools, companies, countries, and politicians release, you could probably recognize that it is filled with phrases that are reassuring: net-zero by 2050, green investment, resilient infrastructure, sustainable development. These words appear everywhere. But without context, we are left in the dark - these phrases don’t tell us who benefits, who is impacted, or whether the policy actually reduces our impact.

Climate policy is shaped by language, perhaps even as much as it is shaped by science. The terms used to describe a plan can influence how it is perceived, how quickly it is approved, and how much criticism it receives. In fact, a proposal described as “climate-friendly” and “carbon neutral” may still increase local pollution. Understanding the language used in these policies is important in understanding how decisions are made, what action is taken, and where questions should be asked.

Below you will see a guide to decoding the **most common terms used in climate policy and advocacy** - diving into not only what these terms mean but also caveats they may introduce.

POLICY LANGUAGE

NET-ZERO

What it Means: Total greenhouse gas emissions are equal to withdrawals

In Practice: Net-zero commitments typically mean substantial cuts to greenhouse gas emissions. It could also mean investments in carbon offsets (emission reductions purchased by a company, individual, etc. to compensate for their emissions).

Questions to Ask: Does the plan have any interim targets? What percent is direct cuts vs offsets/removals?

EMISSIONS INVENTORY

What it Means: Detailed database listing the type and amount of pollutants. It categorizes pollution sources into different categories and tracks key pollutants.

In Practice: These inventories allow governments to back their policies in data. It helps governments identify major sources of pollution, set feasible pollution reduction targets, and develop management plans.

Questions to Ask: How often are inventories updated? Do inventories contain all pollution sources?

CARBON PRICING

What it Means: Policies that put a price on emitting greenhouse gases

In Practice: Carbon pricing usually shows up in two forms: carbon tax and cap-and-trade. A carbon tax is a set fee per ton of emissions. A cap-and-trade system sets an overall limit on emissions and issues a limited number of permits to pollute.

Questions to Ask: Does the overall limit lower every year? Are costs disproportionally impacting lower-income households? What is the scope of the policy - who does it affect (ex. is it sector-wide?)

POLICY LANGUAGE

SCOPES 1, 2, & 3

Scope 1: Direct emissions that company creates (ex. company vehicles)
Scope 2: Emissions from the electricity the company purchases
Scope 3: All other emissions along the supply chain relating to the company
In Practice: Many corporate sustainability plans target Scope 1 & 2, but disregard Scope 3. This is a concern because Scope 3 emissions typically make up the largest share of a company's total climate impact.
Questions to Ask: How can Scope 3 be incorporated into sustainability plans? What specific actions are being done to target the Scopes?

MRV ANALYSIS

What It Means: MRV analysis stands for Monitoring, Reporting, and Verification - the system used to track emissions and report progress on climate goals. It checks whether the data is accurate.
In Practice: MRV systems check if climate commitments are being enforced. MRV requires consistent data collection and public communication.
Questions to Ask: Who performs MRV analysis? How is the data applied?

OTHER TERMS

Clean Electricity Standard - electricity companies must supply more renewable/clean energy over time. Think of this as a *benchmark* for electricity.
Leakage - emission reduction in one place resulting in more emissions in another. Climate change is a global issue and even if emissions are reduced in one sector, if another sector increases their emissions, the impact still occurs.

Public Comment - formal chance for the public to offer their feedback on a policy
Mitigation - actions that reduce emissions
Adaptation - actions that reduce harm
Social Cost of Carbon - estimate of economic harm caused by emitting one additional ton of CO2

NEXT PART

PERMITTING

Why do clean energy projects take ages to build?

The answer is complicated but one major reason is **permitting**.

A **permit** is an official document authorizing a project to move forward. Climate projects typically require a permit before they can be constructed. In practice, permitting is meant to protect communities and the environment. But in reality, it can serve as a bottleneck extending timelines and increasing costs of crucial restorative climate projects.

Think about a new transmission line that connects wind power to a major city. The energy is clean and would be good for the city, but the process of constructing the line can take decades. Since transmission lines typically cross multiple jurisdictions, a single project may need local land-use approvals, state utility approval, and even federal review (especially if it crosses state borders). It can even require route studies, public comment sessions, and negotiations with local landowners. If one part of the project is delayed, the construction of the entire line can be impeded, slowing the delivery of wind power to the city.

So Why Should We Care?

- **I**f clean energy projects take too long to build, they will be replaced with fossil fuel plants.
- Project delays drive up costs, which can prevent projects from being implemented.
- Renewable energy requires grid updates, which can take time.
- BUT implementing projects with no oversight also results in harms (specifically to vulnerable communities)

ZONING

Why is it easier to approve a warehouse or highway than clean infrastructure, solar panels, or public transit?

The answer is zoning.
Zoning laws decide “what belongs where” or in other terms, how land can be used. In many municipalities, zoning laws were written decades ago, before climate change was a major concern (at least in the public’s eye). These zoning laws typically prioritize urbanization, car travel, and single-use property.

It can be hard to see how zoning connects to climate change, so let’s break it down.

- Mixed-use zoning can reduce emissions by keeping housing, schools, and workplaces closer.
- Zoning rules can block clean infrastructure - like solar or wind projects - from being built at all.
- Low-density zoning can increase car travel by spreading communities out.
- Zoning can also slow cleaner transit alternatives, like bus or bike lanes.

But zoning isn’t **always** bad. However, zoning laws that are outdated or exclusionary can prevent progress (especially in terms of the clean energy).

Zoning laws have historically negatively impacted marginalized communities by pushing lower-income communities into “worse” land. For example, in the 1970s in New Jersey, lower-income communities were pushed into Camden, where industrial and waste facilities were present in heavy concentrations - resulting in poor air quality and abundant noise.

But reform is possible. For example, in 2017, Buffalo updated their zoning policy by adopting a “Green Code” that reduced parking requirements, reducing car dependence and promoting denser development. If one city can rethink its land use, others can too.

Continue reading to learn more about the policy process and how YOU can make a change.

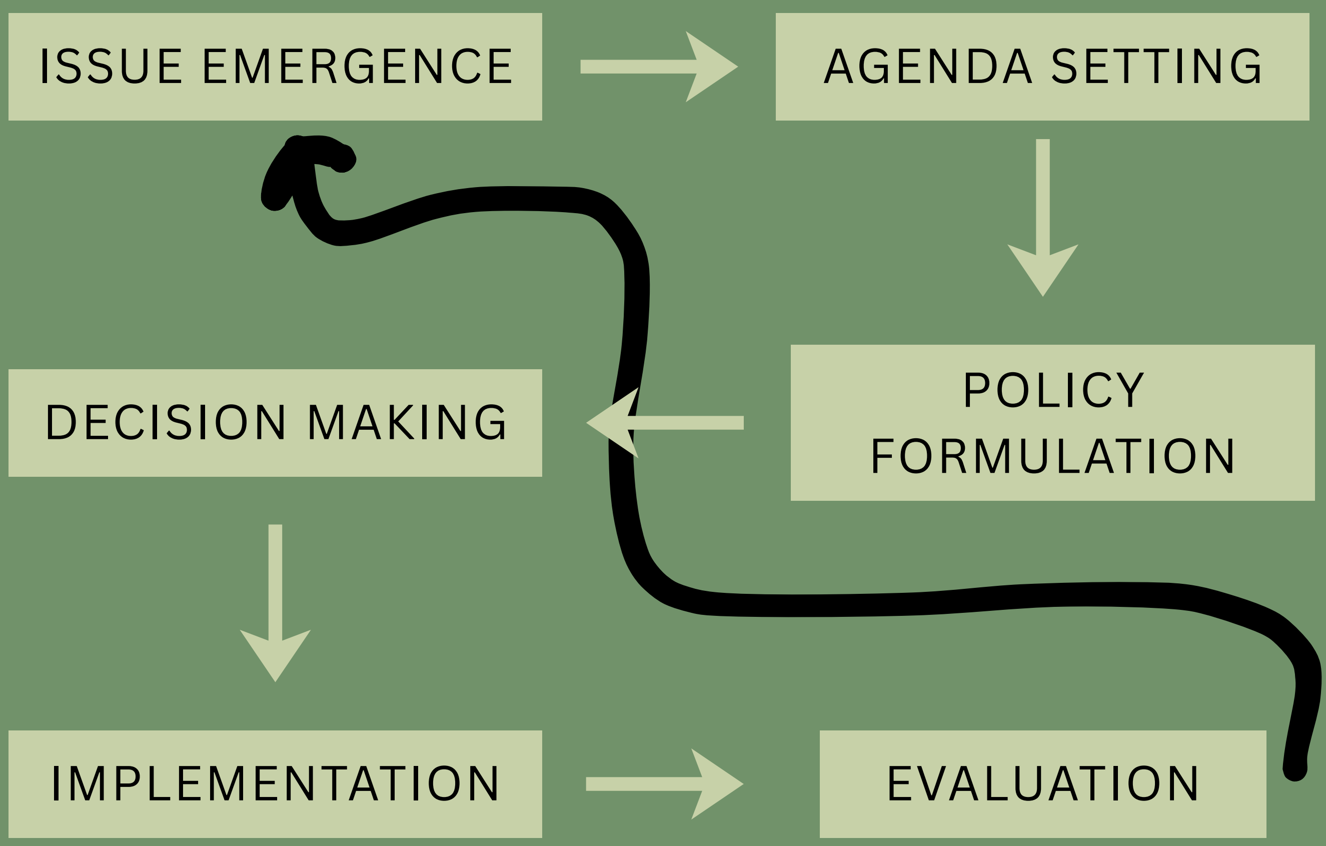
PART 2

POLICY PROCESS

THE POLICY PATHWAY

How does an idea turn into a law?

This question plagues the minds of many individuals who want to get into advocacy and make a difference. Well, there is actually a model (*The Stages Model of Public Policy)* that breaks down the process.



But this model has faced plenty of criticism. One major critique is that policies don't always proceed in an orderly, step-by-step manner. For example, a policy idea may get put on the agenda, but then stall and never reach a vote. Furthermore, another common critique argues that implementation and evaluation are interlinked and are not separate steps.

So as you read about the model, keep that in mind. The model isn't perfect, nor is it applicable to every policy, but it can serve as a good framework to base your understanding of how a policy progresses on.

SARINA VIRMANI

THE POLICY PATHWAY

Let's start with **Issue Emergence**. Most policies start similarly - a problem becomes impossible to ignore. Sometimes a problem reaches this stage overnight (such as the destruction of homes during a catastrophic flood). Other times, it builds slowly and warning signs pile up. People start to recognize that the issue exists and there is concrete evidence that the problem is occurring. People begin pushing for change. In this stage, framing and defining the problem is ***crucial.*** It can influence whether a policy progresses to the next stage or not. Unfortunately, even when an environmental problem is clearly real and backed with evidence, nothing is done about the problem until it is framed as an issue that affects people's health or the economy.

Next is **Agenda Setting** Communities have hundreds of problems, but only a few ever make it on the radar of decision-makers.

Agenda setting is the stage where an issue changes from being something people talk about to something leaders have to deal with. The focus of this stage is to build enough attention to make legislators care about an issue.

In practice, this can look like meetings with officials, lobbying, petitions, public comments, and local hearings. When speaking with officials, it is key to show legislators (through your words) why an issue is urgent and what can be done. If a problem seems completely unsolvable, it's unlikely to even make it on the docket. Once an issue is put on an agenda, the policy can proceed to formulation. This stage can also bleed into the policy formation stage as draft proposals typically arise (created by the public to show legislators how the problem could potentially be solved).

THE POLICY PATHWAY

Next is **Policy Formation.**

This is the step where policy is actually designed. This can be a daunting task, but policy-makers typically ask these questions:

- What exactly are we proposing? (ex. a grant program, a zoning change, a tax credit). A policy can have multiple different parts, but they must be clearly delineated.
- Who has the authority to control it? (ex. city, state agency, utility company)
- Who runs it day-to-day? (ex. who collects the data and enforces the policy)
- How much will it cost? **** CRUCIAL**
- How do we measure success? (what metrics and how often)
- What is the enforcement mechanism? (ex. what happens if someone does not follow the policy)

A policy is often drafted **MULTIPLE** times before it reaches the decision-making stage. Stakeholders, legislators, local businesses, and even the public have a say in what is included in the policy. This process can be quite lengthy, but it is arguably the most important stage in ensuring a policy will be effective.

How California formulated its Advanced Clean Cars II regulations

The policy aimed to *lower the emissions of transportation.*

- **Early-Stage Formulation:** Staff starts with a concept and opens a public hearing to collect input on what the regulation should include, what's feasible, and what tradeoffs may occur.
- **Formal Draft Proposal:** The California Air Resources Board creates its first full draft that included the proposed regulations (actual requirements), definitions, the policy's scope, compliance timelines, metrics, and justification for the policy.
- **Stakeholder Input:** The policy then got input from stakeholders and was revised based on critiques. Multiple drafts arose.
- **Final Draft Proposed:** This draft included a "Final Statement of Reasons" section, explaining the policy's purpose, rationale, and major edits.

THE POLICY PATHWAY

Next is **Decision-Making**, which occurs when an official group adopts or rejects a policy proposal. This is the step that varies greatly depending on the scope of the policy. It typically includes votes, amendments, compromises (trade-offs), and public pressure to either pass or reject the bill.

FEDERAL EXAMPLE: INFLATION REDUCTION ACT

A federal law has the widest scope. The Inflation Reduction Act uses tax credits, grants, and financing to accelerate clean energy to reduce emissions. It also deals with healthcare costs and the federal deficit.

How did the IRA move through decision-making?
1) The policy started as H.R. 5376 (the legislative "vehicle").
2) Bills can move through the floors of Congress normally or use budget reconciliation (a special pathway to passage related to taxes and spending). The IRA moved through reconciliation, which required the bill to comply with certain provisions. The bill moved through committees, where the text was refined, the budget was estimated, and the reconciliation provisions were met.
3) The IRA passed the Senate 51-50 on August 7, 2022.
4) The House didn't pass the original version of the bill, but agreed to the Senate amendment 220-207 on August 12, 2022.
5) The president signed the IRA into law on August 16, 2022.

But laws with different scopes move differently. Keep reading to learn about how a state law could move through the decision-making process!

THE POLICY PATHWAY

STATE EXAMPLE: VA CLEAN ECONOMY ACT

The decision-making process of bills that have statewide scope vary greatly (depending on the state). We are going to analyze the Virginia Clean Economy Act which is a statewide electricity law that creates binding requirements and a schedule for utilities to reach 100% clean electricity by 2050. In Virginia, the bill moves through the General Assembly and ultimately, Governor signs the bill into law. **** Different in other states!**

How did the VA Clean Economy Act move through decision-making?
1) The policy started with companion bills HB1526 and SB851. These bills had the same overall goal as the Clean Economy Act.
2) The bill moved through committees, where it was revised. Floor votes also occurred at this stage (often resulting in more revisions and amendments).
3) The bill was ultimately adopted in March of 2020 (53-45 decision).
4) The Governor signed the bill into law on April 11, 2020.

WHAT ABOUT LOCAL POLICY?

These policies typically move through the decision-making process the quickest, due to their smaller scope. Examples of local policies may include building codes, land use zoning, composting rules, and permit compliance timelines. These policies are typically voted on in the city council and depending on the municipality, the mayor could sign off on it.

One example is **New York City's Local Law 97**, a bill that set greenhouse-gas emission limits for buildings over 25,000 square feet.

The city council adopted the law → the city's infrastructure department set strict compliance rules (complete with a timeline)→ the law was enforced and building owners faced monetary penalties if they did not comply.

THE POLICY PATHWAY

Next is **Implementation.**

Once a bill is actually passed, its implementation decides if the law creates an impact. In practice, implementation usually falls into four categories:

1) **Regulatory Design** - the detailed rules that outline compliance
2) **Administrative Capacity** - the staff, budget, and workers needed
3) **Market / Economic Response** - how companies alter their behavior
4) **Community Impact -** real-world impacts of the policy on actual people

LET’S LOOK AT AN EXAMPLE:

Consider a hypothetical policy that would require data centers to use 100% clean energy for their power.

For **Regulatory Design**, regulators would need to decide what types of power count as “100% clean” and how it is measured. The steps to report and what should be included in the report would likely also be outlined.

For **Administrative Capacity,** agencies need to be fully staffed in order to review data and enforce penalties. If the agency enforcing the policy is understaffed, it is likely that data ceters will get by without using clean energy.

For **Market & Economic Response**, data centers need to have a long-term investment in clean energy. This can come in many forms, such as clean energy contracts or on-site battery storage.

For **Community Impact**, policies need to consider how the people are affected in the short and long term. In the short term, clean energy expansion could result in more construction and disruptive transmission lines. However, in the long run, clean energy usage could improve the air quality.

THE POLICY PATHWAY

Evaluation: Did the policy actually work?

Measuring the success of a policy can be tricky, especially because policies can vary dramatically in style and outcome. However, for policies related to the environment specifically, there are some common ways to measure success.

Environmental Outcomes

- Did emissions decrease?
- Were targets hit?
- Data can include both quantitiative and qualitative data depending on the type of policy specifically

Economic Impact

- Did electricity prices rise?
- Did the cost burden shift?
- Were jobs created?
- Was investment boosted?

Enforcement

- Were penalties issued?
- Did companies find loopholes?
- Was enforcement even and equitable?
- Was the public involved?

NEXT PART

SARINA VIRMANI

STAKEHOLDERS

Every policy impacts people. Stakeholders are essentially those people - any group, individual, or even community that has a *stake* in the policy at hand. Some stakeholders are decision-makers or those with the power to persuade decision-makers. Other stakeholders are individuals impacted economically, socially, or environmentally by a policy. For the same hypothetical data center example as earlier, let's identify stakeholders.

Decision-Makers

The officials that pass the policy.

- State legislators
- Governor (if applicable)
- Public Utility Agencies
- Environmental Agencies
- Local elected officials
- Federal government

The Industry

The companies impacted.

- Data center operators
- Cloud service providers
- Construction companies
- Clean energy facility operators
    - Ex. wind turbine plant owners

The Community .

- Customers (ex. residential)
- Small businesses
- Environmental Advocates
- Frontline communities

SARINA VIRMANI

VIRGINIA CASE STUDY

The "Clean Cars" Law - HB1965 from 2021

Overview: This law was passed in 2021 and it created a Low-Emission Vehicle and Zero-Emission Vehicle program. The agency in charge of implementation and enforcement is the State Air Pollution Control Board.

ISSUE EMERGENCE

By 2019, almost half of Virginia's greenhouse gas emissions came from transportation (42% to be exact), according to a study from Virginia's Carbon Reduction Strategy. The public was not only concerned about emissions but also health (the air quality along high-traffic areas was poor).

AGENDA SETTING

What really catalyzed the promotion of green transportation policies was California's new standards under the Clean Air Act (Section 177). These standards included low-emission vehicle standards about smog pollution and criteria pollutants as well as zero-emission vehicle mandates (how many electric vehicles must be sold). Other states began adopting these policies and Virginia was debating whether they would follow suit.

POLICY FORMATION

HB1965 was outlined by the General Assembly but regulators were the ones who wrote the technical rules in terms of standards. It was modeled after California's standards. The bill required the Implementation of a Clean Cars program that would officially start in 2025. The time buffer was created to give agencies and companies time to adapt.

VIRGINIA CASE STUDY

DECISION-MAKING

Since HB1965 was a Virginia-specific policy, it went through Virginia's channels. It ultimately passed during the 2021 legislative session and was signed into law in March of 2021. However, the policy faced much pushback and has faced repeal efforts since then (ex. 2024's failed repeal effort).

IMPLEMENTATION

The policy's implementation has been extremely *lengthy.* In December 2021, the State Air Pollution Control Board adopted the regulations, officially known as 9VAC5-95 (Low Emissions and Zero Emissions Vehichle Standards). The regulations began to apply in 2025. However, the 2024, Virginia's Governor stated that Virginia would stop following the standards.Since then, the policy still exists, but it does face *significant* pushback.

EVALUATION

The policy is in its early stages, so evaluation is a bit tricky to measure but in 2025, nearly 85,000 electric vehicles were on the Virginia's road and 1,896 charging stations were built. This is a significant increase from 2021.

STAKEHOLDERS

- Decision-Makers: General Assembly, Governor
- Regulators: State Air Pollution Control Board, DEQ
- Auto Industry: Vehicle manufacturers and car dealers
- Charging providers, local governments, utilities
- Frontline communitiies & communities near high-traffic areas
- Environmental advocates & nonprofits

SARINA VIRMANI

NATIONAL CLIMATE POLICY

In the US, national climate policy can be *roughly* categorized through three key pillars: regulatory authority, market incentives, and infrastructure. Both federal and state agencies enforce policies, with varying levels of success.

PILLAR 1: REGULATORY AUTHORITY

This pillar includes all **regulation** policies. Typically, Congress is the body that passes broad environmental goals or standards and federal agencies (like the Environmental Protection Agency) translate the goals into enforceable rules.

An example is the **Clean Air Act**

- Purpose: Regulating Greenhouse Gas Emissions
- The EPA sets *emission limits* for stationary and mobile sources
- One of the goals was to achieve National Ambient Air Quality Standards by 1975, but many states failed to meet the deadline
- Specific sections of the act, such as Section 112, aim to curb the emissions of specific pollutants

Other types of policies that would fall under Pillar 1 include technology or equipment standards, permitting or siting rules, vehicle regulations, or even federal land regulations. In general, anything that sets rules, requires permits, mandates reporting.

Agencies that enforce regulation:

- **Environmental Protection Agency**
- Federal Energy Regulatory Commission
- Department of Energy (more funding)
- Department of Transportation
- Department of the Interior
- Securities & Exchange Commission
- Department of the Treasury

**NOT AN EXCLUSIVE LIST

NATIONAL CLIMATE POLICY

PILLAR 2: MARKET INCENTIVES

This pillar typically includes policy that features some sort of economic incentive. This could be in the form of tax credits, grants, or even subsidies to industry to encourage changes in behavior.

An example is the **45Q Tax Credit**

- Purpose: Provide a financial incentive for companies to capture carbon dioxide
- Companies can get a certain amount of money per metric ton of carbon dioxide captured and stored
- More money can be earned depending on the type of carbon capture and storage (ex. geologic storage of carbon dioxide underground earns more money)
- After the Inflation Reduction Act (featured on page 20), the credit value increased and the scope expanded

Other types of policies that would fall under Pillar 2 are tradable credits for clean energy generation, renewable energy certificates, feebates (companies charged for high emissions).

PILLAR 3: INFRASTRUCTURE AND THE GRID

In order for clean energy generation to increase, there has to be infrastructure and people to support its growth. This pillar would include policies that feature transmission lines, renewable energy plants, energy storage facilities, and pipelines.

NATIONAL CLIMATE POLICY

An example of a policy under Pillar 3 is the National Electric Vehicle Infrastructure **(NEVI) Formula Program.**

- Purpose: Give states a formula to build electric vehicle infrastructure (ex. charges along highways)
- States submit plans and the Federal Highway Administration provides funding to manufacture and operate these chargers (up to 80% of the cost can be covered completely under the NEVI program)

To summarize, the program is **federal investment supporting infrastructure for electric vehicles.**

NOT ALL POLICIES FALL UNDER THIS!

These three pillars are extremely general - there are SO many different types of federal climate policies that it is nearly impossible to categorize them all in neat categories. For example, there are policies that urge for the expansion of clean hydrogen technologies, programs that fund energy storage research, and policies intertwined with connecting energy resources to the grid. However, these three pillars can give you an idea of what national climate policy architecture looks like, which can help with your advocacy!

Continue reading to get a snapshot of some states and their climate policies.

NEXT PART

STATE SNAPSHOTS

CALIFORNIA: SB 100

California's SB 100 (or the 100% Clean Energy Act) set a target for renewable energy to supply 100% of electric retail sales by 2045. It also included a provision that prevents "resource shuffling" (emissions in California decrease BUT emissions in some other state increase due to the decrease). The policy indicates that the California Energy Commission, Public Utilities Commission, and Air Resources Board will be in charge of implementation and enforcement.

NEW YORK: CLCPA

The CLCPA (Climate Leadership and Community Protection Act) sets targets for renewable energy power based on industry. For example, for the electricity industry, it calls for 70% renewable electricity and 100% zero-emissions electricity by 2040. This policy works alongside cap and invest legislation that provides financial incentives for investing in clean energy.

ILLINOIS: CEJA

Illinois' Climate and Equitable Jobs Act (CEJA) connects decarbonization targets with workforce growth. It sets a goal of 100% clean electricity by 2050. The law specifically creates training programs, funds apprenticeships, and promotes employment overall in the clean energy industry. It also requires more investment in clean energy infrastructure. The policy is enforced through the Illinois Commerce Commission as well as other state energy agencies.

STATE SNAPSHOTS

WASHINGTON HB 1257

HB 1257 is Washington's Clean Buildings Performance Standard which sets energy performance targets for large buildings. It utilizes a framework that measures energy use intensity (EUI) targets based on the type of building and location. It specifically categorizes buildings into Tiers and sets standards based on those tiers. It also offers grants to building owners that willingly follow standards.

NEW JERSEY: NJPACT

Due to New Jersey's location on the coastline, it is especially vulnerable to floods. The NJPACT REAL isn't just one policy, but rather a set of rules that foster climate resilience. The main thesis behind these roles is that new development must account for future conditions, such as sea level rise. It even revises rules such as Coastal Zone Management.

MAINE: LD 1541

Maine's LD 1541 created EPR (extended producer responsibility) systems for product packaging. It shifted the financial burden from taxpayers to producers of packaging materials. It encourages waste reduction (as more waste costs producers more money). These production companies have to pay local government.

PART 3

ALL ABOUT ADVOCACY

BUILDING CHANGE

Now that you know a bit of the science behind our environment and how the policy process works, it's time to get involved and ***advocate*** for change.

What is Advocacy?

The act of influencing & persuading others on behalf of a cause

Anyone can be an advocate. You don't have to go viral, have a large following, or be high up in the ranks of power. In fact, most advocacy is extremely local and organized by people like you and me. When you know the basics, you can turn research and data into action, build support, and push for real change.

Not all advocacy looks the same. Depending on what you are trying to change, you can advocate by spreading awareness, meeting with your local leaders, speaking at public forums, building public support, publishing a brief, or even working to get media coverage.

In this section, you'll come across two key tools:

- The **Map to Success** goes over the basic ingredients of what is needed to succeed in creating local change. This draws upon some knowledge from the Policy Pathway section of this book, so refer to page 17 if confused.
- The **Advocacy Ladder** turns the map into action. It talks you through the process from start to finish in creating change.

BUILDING CHANGE

SARINA VIRMANI

BUILDING CHANGE

How do you use the Map to Success?

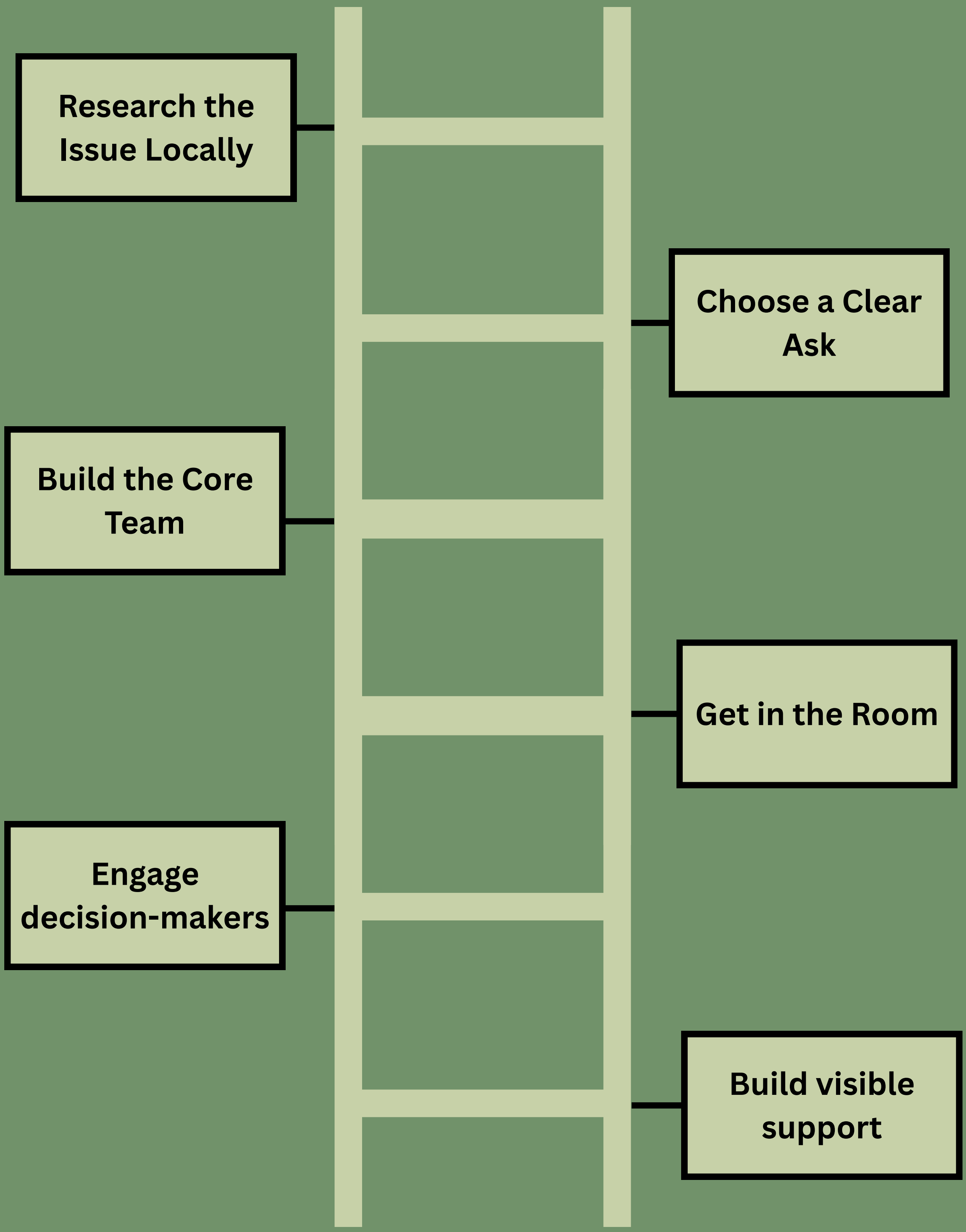
Most advocacy efforts stall because some important factor is missing. The Map to Success outlined the important factors that are almost always necessary to create change. But remember, the map is not a **STEP-BY-STEP** process by any means. It's more of a checklist, showing you the ingredients behind successful local change. If one of the factors listed above is weak or nonexistent, it is likely that your advocacy effort will stall.

Here's how to use it:

- **BEFORE YOU START:** Use the map to design your strategy.
- **IF YOU GET STUCK:** Revisit the map and ask yourself what is missing. For example, have you created enough visible support? Have you considered who can actually create change?
- **AFTER YOU FINISH:** Use the map to ensure implementation. Track progress (typically through data). This may be timely, but it is important!

I get that this can be quite overwhelming, but no need to worry! Check out the Advocacy Ladder on the next page, detailing the steps to start and maintain an advocacy effort. The Ladder details how you can move from an idea to an outcome and what that may look like.

ADVOCACY LADDER



ADVOCACY LADDER

Research the Issue Locally

- Define the problem in 1-2 sentences
- Gather statistics and read news articles
- Collect stories from communities
- Figure out specifically what issue you are focusing on
- Ex. Solar Panel Farm Construction in your town

Choose a Clear Ask

- Look up policies in your area that are on the docket or agendas from past sessions. See if anything matches your issue.
- Write a one sentence ask of what you want your decision-maker to do (ex. Support HB1576 in the upcoming vote). Make it something actionable and attainable.

Build the Core Team

- Recruit 3-8 people who are going to help you advocate. This can be friends, family, or anyone who cares or is passionate about the issue.
- Delegate roles (optional)
- Agree on the Ask & Message.

Get in the Room

- Attend any meetings that pertain to the issue or the policy
  - There are schedules online for most forms of local government
- Sign up to make public comments and speak for 1-2 minutes on the issue and your ask

Engage decision-makers

- Request meetings with your legislators (state that you are a constituent and email administrative or legislative assistants if possible)
- In meetings, tell them your ask, ask for their perspective, and come with research (ex. one-pagers on the issue and your ask)

Build visible support

- Perform community outreach and get partners (businesses or nonprofits if applicable)
- Get testimonials from the public
  - Use personal stories!
- Start a petition and gather signatures to support your ask (give signatures to legislator)

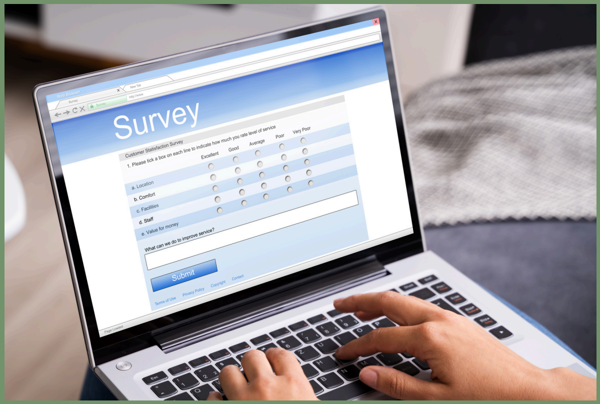
RESEARCH AS ADVOCACY

Before you schedule meetings with legislators or even start building your core team, you need to understand the landscape around your issue. What laws exist? What arguments are being made? Are there any new policies in the works? Who are the current champions of these policies? Are these policies effective in solving your issue?

Conducting detailed, high-quality research will not only help you define the problem that you are focusing on but it will also show you the gaps in the current solution. It also prevents you from wasting time focusing on solutions that have already failed. Ultimately, research is will lift your advocacy movement off the ground. Legislators want to listen to constituents that are ***informed*** and ***in tune*** with the current political landscape of your issue. They want to hear from you.

What Research is Useful?

- **Background Research**
  - What laws already exist?
  - Are there any new laws coming?
  - Who are the stakeholders?
  - What are the financials?
- **Quantitative Research**
  - Statistics from credible sources
  - Trend data over time
- **Case Studies**
  - Comparisons between areas
  - What happened after bills passed?
  - What succeeded and what failed?
- **Community-based Research**
  - Surveys, Interviews, Focus Groups
  - Talk to community members



RESEARCH AS ADVOCACY

Making Research Tangible

First, summarize your findings:

- What is the core problem? (add statistics here!)
- Why is it urgent?
- Who is affected?
- What is the most realistic solution? (this could be a policy that already exists but needs edits or an upcoming policy or a completely different solution)

Second, create something tangible.

- A one-page fact sheet (see template)
- A short policy brief
- A slide deck for a community meeting
- A draft policy proposal

Remember that decision-makers rarely have time to read a long report. They want something clear, concise, and well-researched. By completing the research for them, you make it easier for legislators to support your solution. Be sure to delineate a **clear ask** on your tangible research item. For example, on a one-pager about energy siting, tell your legislator to support SB588 about solar panel siting.

Third, connect your research to people. Statistics and data can be powerful, but they are just numbers if not connected to people. Collect real stories and incorporate them into your tangible research item. This can also be a good way to gain visibility.

ONE-PAGER TEMPLATE

This template is specifically for creating a one-pager on a policy. This policy can either exist already, is in the works, or is something that you came up with.

TITLE	Clear title of the policy
PROBLEM	1-3 short paragraphs about what is happening, why it matters, and 2-4 data points / statistics
BILL SUMMARY	1-3 short paragraphs or 5-12 bullet points summarizing what the policy specifically does (ex. what does it change?)
BENEFITS	5-10 bullets on why the policy is good and include specific evidence (if applicable)
IMPACT	If implemented, what will the change look like? Draw upon other localities if helpful. 1-2 short paragraphs.
FEASIBILITY	1-2 paragraphs about any cost considerations or feasibility in terms of implementation.
ASK	1 sentence stating that you would like their support of the policy or whatever your specific ask is
CONTACT INFO	Your email and phone number so that they can contact you if any questions arise

SARINA VIRMANI

LOBBYING

What is Lobbying?

Meeting with decision-makers with the goal of influencing policy

LOBBYING IS

- Presenting research and evidence
- Making a clear ask
- Building an ongoing relationship with a decision-maker or their assistants
- Staying respectful and listening

LOBBYING ISN'T

- The only solution
  - One meeting isn't going to solve! Persistence = key
- Delivering a long speech
- Getting upset or yellling at officials

How to set up a lobby meeting?

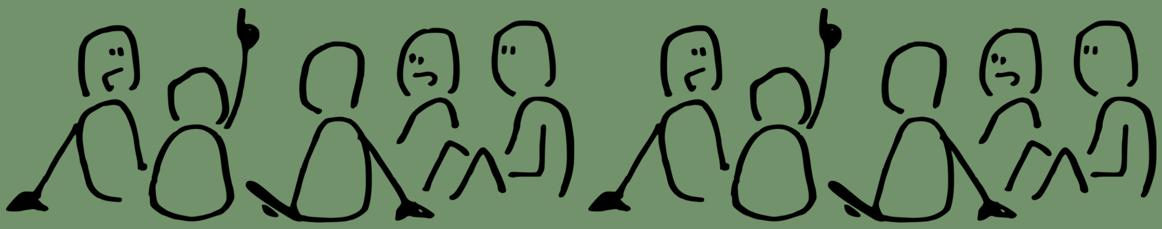
- Identify the scale of the policy you are advocating for
  - If the policy is local, look to local government, the School Board, or the Board of Supervisors
  - If the policy is state level, look to the General Assembly
  - If the policy is federal, look to Congress
- Determine **your representative** and find their email by looking at their website (email their Chief of Staff or any legislative assistants as well)
- Send an email using the following structure:
  - Introduce yourself and include your address
  - State the issue/policy you are advocating for
  - Explain in 1 sentence why you care about the issue
  - Request a brief meeting (10-30 minutes) and provide dates/times
    - Clarify whether you are asking for an in-person or online meeting
    - Be flexible in terms of times/dates as these representatives are usually very busy
- If you do not receive a response, send a follow-up message!

LOBBY MEETING OUTLINE

In a lobby meeting, you want to ideally have at least 3-5 members of your core team. At least 1 member should be a constituent of the elected official.

THE OUTLINE

1) Thank your Elected Representative for meeting with you
2) Ask them how much time they have for the meeting (usually 15-30 minutes)
3) Introduce yourself and briefly explain why you care about the issue
   - This should be 1-2 sentences per person.
4) Show appreciation for something your Elected Official has done.
   - I appreciated your support on X BILL because ...
5) State your ask.
   - We're here today to ask you to support XX legislation. It does [one sentence describing what the bill does].
6) Transition into the discussion.
   - Before your meeting, think about what your representative's responses may be and perform applicable research.
   - Find common ground with your representative on the issue.
   - Ask what you can do to help push the legislation forward.
   - Ask what might be preventing them from supporting the legislation
7) Re-state your ask and explicitly ask your Elected Representative if they would be support it.
8) Thank the Representative for their time.
   - If your meeting is in-person, hand your representative a physical card.
   - If your meeting is online, be sure to send a thank you email.



VOICES OF ADVOCATES

Meet Dhruhi

Dhruhi is a senior at John P Stevens High School in New Jersey, and she is highly passionate about engineering and sustainability. As an aspiring chemical engineer, she aims to contribute to climate technology solutions that combine policy, community engagement, and scientific research to ensure sustainability is not just an abstract concept but a practical choice for everyone.

What first got you interested in climate change?

The first thing that got me interested in climate change was seeing that people wanted to do something, but there often wasn't a clear way for someone to actually help change others' behavior. People felt stuck in a loop.

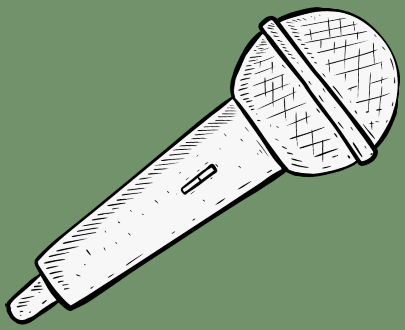
What has been the most meaningful initiative to you?

I've been working with Rutgers University and its Cooperative Extension to design and build stormwater infrastructure for residents, and that experience has been incredibly meaningful to me. In New Jersey, the "concrete jungle" effect is growing as suburbs become more city-like, which increases stormwater runoff and water pollution. Creating designs from scratch for residents at no cost has been especially rewarding, and I've also enjoyed helping connect residents to rebate programs. This work has shown me that environmental change starts where you are, and that initiatives can make a real difference.

What advice would you give to a student who wants to mobilize others in their community?

Don't be afraid to start. It's okay if progress feels slow at times. The more you get involved and the more clearly you communicate what you want your initiative to accomplish, the more likely it is to succeed.

VOICES OF ADVOCATES



Meet McKenzie

McKenzie is a senior and a Co-Lead of the Actions Team on the National Youth Action Team for the Citizens' Climate Lobby (or CCL). CCL is a non-profit, nonpartisan, grassroots advocacy organization focused on national policies to address climate change.

What first got you interested in climate change?

When I was younger, I struggled with intense climate anxiety. In school, we would read about coral reefs and how they were getting close to being beyond saving, and that became a huge source of stress for me. I felt like there was nothing I could do. I couldn't stop people from driving cars or using energy. So when I found Citizens' Climate Lobby, it gave me a tangible way to contribute.

In your experience lobbying, what are some challenges that you have faced?

The biggest challenge is feeling like you have to know everything or feeling nervous. Two things are important to remember. First, you do not need to know every detail, even though you should absolutely do your research. Second, the legislative aide wants to hear from you. They want to understand your personal reasons for lobbying, not just the nitty-gritty policy details.

What advice would you give to a student who wants to mobilize others in their community?

A roadblock for me was not having much experience. But I learned that if you stay consistent and keep trying, you start to get the hang of it. You have to keep going, and that persistence really does pay off.

COMMON CHALLENGES

1) You are faced with too much information.

One tip is to set a decision deadline. Remember that research never ends and even when you are going through your plan, you can still perform research. Another tip is to create a one-pager on the issue. It forces you to summarize your research and clear up your ask.

2) Your decision-maker declines your ask.

Ask them WHY they declined the ask or why they don't support the bill you are advocating for. Offer to perform research on their concerns and see if the bill (or another bill) has a potential solution.

3) Your legislator doesn't respond to meeting requests.

Send follow-up emails and be sure to include your address in your email so that they know you are a constituent. Send emails to their legislative assistants as well.

4) You are nervous speaking to legislators.

The biggest tip I can give is to trust your research. You probably know this issue better than most people in the room, including many legislators who have to know about dozens of issues. Remember a few key facts and a clear ask when speaking to legislators and you will be 100% fine.

COMMON CHALLENGES

5) Your legislators says that this is not their issue area.

Make sure you do your research so that you know what your legislators issue areas actually are but also choose an ask that is applicable to your legislator. For example, even if your legislator is focused on health policy, they can still vote on a climate policy - so don't be discouraged!

6) You are asked a question you don't know.

This happens all the time and can shake your confidence. There is a good way to handle it. Simply say that you are going to follow-up with research and information. Email them 24 to 48 hours later with the answer.

7) You send follow-up emails and get no response.

Send another follow-up! Legislators often have a lot of mail flooding their inboxes, so it doesn't hurt to try to email them again. It may take multiple rounds of emails.

NEXT PART

CLIMATE INITIATIVE IDEAS

This page includes ideas for easy climate initiatives that you can start in your community alongside your advocacy work!

1) Reusable Bottle Campaign

Encourage students/community members to use reusable water bottles for a week or month. Create an incentive system with awards to get more participation.

2) Seed Giveaway

Give out small plants or seed packets with quick tips on how to care for them. This could be a good Earth Day activity!

3) Neighborhood Cleanup

Get a group of people together and choose an area in your community to have a cleanup.

4) Recycling Education Posters

Create posters that illustrate what can actually be recycled and place them in your school and local community.

5) Pledge Wall

Set up a wall in your school where students can put sticky notes that they write one climate action they pledge to do

CLOSING

If you've made it this far, I hope that you takeaway at least one thing: climate advocacy is possible when you turn concern into a clear, repeatable plan. To get started on your climate advocacy journey, just pick a local issue, identify the next decision point and then get started on your research.

Additional Resources

1) Research Tools

- NASA Climate - https://science.nasa.gov/climate-change/
- IPCC Reports - https://www.ipcc.ch/
- NOAA Stories - https://www.noaa.gov/climate
- Project Drawdown - Climate Solutions - https://drawdown.org/climate-solutions-101
- Your county's website, planning pages, local utility pages

2) Advocacy Organizations & Other Toolkits

- Climate Reality Project - https://www.climaterealityproject.org/act
- Citizens' Climate Lobby - https://citizensclimatelobby.org/
- The Climate Dictionary - https://www.undp.org/publications/climate-dictionary
- The OpEd Project - https://www.theopedproject.org/
- Climate Advocacy Lab - https://www.climateadvocacylab.org/

REFERENCES

- California Air Resources Board. (n.d.). *Advanced Clean Cars II*. California Air Resources Board. Retrieved February 22, 2026, from https://ww2.arb.ca.gov/our-work/programs/drive-forward-light-duty-vehicle-program/advanced-clean-cars
- *Clean Buildings Performance Standard (CBPS) – Washington State Department of Commerce*. (2025, December 30). Washington State Department of Commerce. Retrieved February 22, 2026, from https://www.commerce.wa.gov/cbps/
- *Climate and Equitable Jobs Act - Climate and Equitable Jobs Act*. (n.d.). Illinois Environmental Protection Agency. Retrieved February 22, 2026, from https://epa.illinois.gov/topics/ceja.html
- Heckt, S. (2025). *Energy demands, regulations and federal funding challenge Virginia Clean Economy Act*. Virginia Mercury. https://virginiamercury.com/2025/07/02/energy-demands-regulations-and-federal-funding-challenge-virginia-clean-economy-act/
- Iberdola. (2025). *Kiribati submerged by climate change*. Iberdrola. Retrieved February 22, 2026, from https://www.iberdrola.com/sustainability/kiribati-climate-change
- *INFLATION REDUCTION ACT OF 2022*. (2022). Department of Energy. Retrieved February 22, 2026, from https://www.energy.gov/edf/inflation-reduction-act-2022
- Lavoie, D., & Brumfield, S. (2024). *Virginia governor says state will abandon California emissions standards by the end of the year*. AP News. https://apnews.com/article/virginia-youngkin-california-vehicle-emissions-c0e1ae385ce6eaa76fd0e4cdb30a211e
- Levenberg, D. (2026). *Opinion: Don't delay the CLCPA*. https://www.cityandstateny.com/opinion/2026/01/opinion-dont-delay-clcpa/410529/
- Maine Legislative Document 1541 A (2021). (2021). *Guide to EPR Proposals*. https://epr.sustainablepackaging.org/policies/LD1541A
- McArthur, T. (2025, August 5). *Great Barrier Reef suffers worst coral decline on record*. BBC. Retrieved February 22, 2026, from https://www.bbc.com/news/articles/cvg3pp52m65o
- NJLM. (2026). *NJ Department of Environmental Protection Adopts the NJPACT REAL Rules*. https://www.njlm.org/m/newsflash/Home/Detail/3683
- Rankin, S. (2024). Virginia Senate Democrats vote down GOP-sponsored 'clean cars' repeal bills. AP News. https://apnews.com/article/virginia-clean-cars-repeal-bills-8cf9a10d6d9b095707ef57f15b947a62

REFERENCES

- *The SB 100 Joint Agency Report includes*. (n.d.). California Energy Commission. Retrieved February 22, 2026, from https://www.energy.ca.gov/sb100
- Schito, M. (2022). *Public Policy Series: The Stages of the Policy Process*. https://www.byarcadia.org/post/public-policy-101-the-stages-of-the-policy-process
- Singh, N., Levin, K., & Finnegan, J. (2016). *MRV 101: Understanding Measurement, Reporting, and Verification of Climate Change Mitigation*. https://www.wri.org/research/mrv-101-understanding-measurement-reporting-and-verification-climate-change-mitigation
- *Summary of the Clean Air Act | US EPA*. (2025, July 25). EPA. Retrieved February 22, 2026, from https://www.epa.gov/laws-regulations/summary-clean-air-act
- UC San Diego. (2026). *Keeling Curve*. Retrieved February 22, 2026, from https://keelingcurve.ucsd.edu/
- VDOT. (2023). *Carbon Reduction Strategy*. https://www.transportation.gov/sites/dot.gov/files/202404/Virginia%20CRS%20%282%29.pdf
- Watershed Institute. (n.d.). *NJPACT REAL Rules*. https://thewatershed.org/25671-2/
- Welch, C. (2025, June 24). *How Cape Town Avoided Day Zero, and What We Can Learn*. National Geographic Education. Retrieved February 22, 2026, from https://education.nationalgeographic.org/resource/why-cape-town-running-out-water-and-whos-next/
- World Weather Attribution. (2022). *Climate change likely increased extreme monsoon rainfall, flooding highly vulnerable communities in Pakistan*. https://www.worldweatherattribution.org/climate-change-likely-increased-extreme-monsoon-rainfall-flooding-highly-vulnerable-communities-in-pakistan/
- Zanchettin, D. (2021). *Sea-level rise in Venice: historic and future trends (review article)*. EGU. https://nhess.copernicus.org/articles/21/2643/2021/