United States of America
Fair Shares Nationally Determined Contribution

A civil society model document for the
US climate action pledge submission to the
United Nations Framework Convention on Climate Change
under the Paris Agreement

APRIL 2021

The Fair Shares NDC at a glance

With the U.S. officially rejoining the Paris Agreement, the Biden Administration must now establish how it will achieve emissions reductions consistent with limiting global temperature rise to 1.5°C, as well as provide support for developing countries and vulnerable communities that are already bearing the brunt of extreme weather and rising sea levels. These commitments will be set forth in the U.S. Nationally Determined Contribution (NDC).

The *Fair Shares NDC* presented here outlines measures that the Biden Administration should take to advance an equitable, just and ambitious climate agenda at home and abroad, including implementing or working with Congress to implement:

- A total U.S. fair share contribution to global mitigation equivalent to a reduction of at least 195% of U.S. greenhouse gas emissions below 2005 levels by 2030 (i.e., 14 gigatonnes annually by 2030). This commitment must include a reduction of at least 70% domestically by 2030 compared to 2005 levels, as well as the equivalent of a further 125% reduction to be undertaken by financial and other forms of international support to developing countries;
- Regulatory measures to stop fossil fuel expansion and phase down production, including limiting emissions from power plants and electrifying motor vehicles, planes, ships, trains and pipelines; and supporting a just and equitable transition away from fossil fuel use consistent with the 1.5°C climate goal;
- International climate finance contributions of at least $800 billion between 2021-2030, as a good faith down payment toward our fair share, equally split among finance for mitigation, adaptation, and for the loss and damage caused by irreversible climate change ($267 billion each);
- An international debt relief and green recovery package, including U.S. support for the issuance of up to $3 trillion in Special Drawing Rights (SDRs) to help developing countries implement the UN Sustainable Development Goals and Paris Agreement goals;
- Substantial investment in climate-resilient infrastructure in the U.S., including a $40 billion resilience fund, alongside the reformulation of disaster recovery programs to better support the most vulnerable communities and protect ecosystems and imperiled species; and
- Interagency, participatory planning processes to ensure that transitioning away from fossil-fuel-based economies and building climate resilience ultimately combat systemic, structural, and institutional racism and guarantee respect for human rights and the rights of Indigenous Peoples, gender equality, a just transition, intergenerational equity, food security and sovereignty, and poverty eradication.

The *Fair Shares NDC* does not subscribe to the concept of "net zero" or "net reduction," and the policies outlined in this NDC avoid using mechanisms that allow business-as-usual emissions to continue. Carbon trading and offset programs are ineffective at reducing emissions, perpetuate environmental racism and compromise human rights, and undermine healthy, sustainable, and resilient communities and food systems.

This *Fair Shares NDC*, which takes the form of a "model" document utilizing the voice of the U.S. federal government, lays out a wide range of specific policy prescriptions encompassing climate

mitigation, adaptation, and loss and damage, at domestic and international levels. The organizational signatories to this *Fair Shares NDC* should not be assumed to endorse each of these individual measures in their entirety, but the NDC as a whole is indicative of the multi-sectoral level of effort and scale of commitment required to address the climate challenge in a manner consistent with human rights, environmental justice, and democratic organizing principles.

Endorsing Organizations: ActionAid USA, Care About Climate, Center for Biological Diversity, Center for International Environmental Law, Corporate Accountability International, EcoEquity, Food & Water Watch, Friends of the Earth U.S., Gulf Coast Center on Law and Policy, Oil Change International, Sunrise Movement, SustainUS, Women's Environment and Development Organization (WEDO), 350.org

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This document can be found online at: **https://foe.org/usa-fair-shares-ndc**

Table of Contents

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1. A fair, just and ambitious climate goal

The U.S. Nationally Determined Contribution (NDC) strives to be equitable and ambitious, reflecting the principles of human rights outlined in the Paris Agreement and recognizing that taking a rights-based and participatory approach to climate action leads to more effective, resilient and equitable outcomes. Taking a holistic approach to planning and implementing the U.S. NDC includes empowering people through public participation; ensuring respect for human rights and the rights of Indigenous Peoples, gender equality, a just transition, intergenerational equity, food security and sovereignty, and poverty eradication; and combating systemic, structural, and institutional racism.

As its contribution towards achieving the stabilization of greenhouse gas (GHG) concentrations in the atmosphere to limit global warming to 1.5°C and human-rights centered climate action, the U.S. commits to achieving its fair share of emissions reductions, supporting international climate action, and promoting the adaptation and resilience of U.S. communities.

These commitments are interconnected: (1) the U.S. fair share of mitigation emerges from analyses that consider the human rights of people who did not and do not contribute significantly to climate change, but are disproportionately affected by it; (2) a robust climate finance goal is rooted in commitments to international cooperation and support; (3) ensuring communities at home and abroad can build resilience, led by those most historically marginalized, is similarly reflective of principles of environmental justice.

Environmental justice, human rights, gender equality, and social inclusion

The U.S. recognizes that, as a result of centuries of colonialism and neocolonialism, structural racism, patriarchy, and economic injustice, frontline communities and those most vulnerable to climate impacts are the communities least responsible for the climate crisis, have the fewest resources to adapt, and are the most affected by it.[1] As noted in the U.S. 4th National Climate Assessment, "prioritizing adaptation actions for the most vulnerable populations would contribute to a more equitable future within and across communities." As our country moves away from a fossil fuel-based economy that has left communities of color, tribal communities, and low-income communities exposed to the highest levels of toxic pollution

[1] As noted in the Southern Communities for a Green New Deal policy platform, p. 9, "Frontline & vulnerable communities, as defined in GND Resolution, include: Indigenous peoples, communities of color, migrant communities, communities facing industrial pollution and resource extraction, depopulated rural communities, incarcerated and detained, the poor, low-income workers, women, the elderly, the unhoused, people with disabilities, and youth. However, frontline communities can be unrelated to identity and can be defined as communities that are directly impacted by climate disasters or climate transitions, such as people who live in coastal cities as well as workers and cities historically reliant on coal, oil, gas economy that now face challenges as those industries phase out."

and climate impacts and has perpetuated systemic inequalities and environmental racism, the U.S. recognizes the opportunity to transform the system and promote justice and equality.

Environmental justice principles[2] will guide all U.S. climate action domestically and internationally, including through the following actions:

- The White House Environmental Justice Interagency Council has been tasked with updating and expanding upon Executive Order 12898 on Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations;
- Executive Order 14008 on Tackling the Climate Crisis at Home and Abroad has set a goal that at least 40% of the "overall benefits" of federal climate-related investment will flow to "disadvantaged communities;"
- The Environmental Protection Agency (EPA) will establish and implement a No Hotspots Policy to prevent disproportionate exposure to multiple sources of pollution, particularly in communities of color. The policy will require cumulative impact and risk assessments of all federal policies, regulations, and actions to reduce the combined health effects of multiple environmental stressors in a given locale;
- The U.S. recognizes that carbon trading, markets, and offset programs are ineffective at reducing GHG emissions; increase air pollution and other harmful health and environmental impacts in environmental justice, Indigenous, and low-wealth communities; and undermine efforts to build a healthy, sustainable, and resilient food system. Given this recognition:
    - No federal carbon market will be developed, nor will government resources be used to support voluntary or regional/state carbon markets;
    - The U.S. will not allow for the use of offset credits, whether international or within the United States, in order to achieve greenhouse gas reduction targets;
    - Carbon - whether sequestered in soil, trees, or otherwise - will not be commodified and traded.

The U.S. commits to ensuring the rights and leadership of historically marginalized communities, people of color, Indigenous Peoples, youth, LGBTQIA+ persons, disabled people and women, and will center their leadership in advancing participatory approaches to climate and environmental protection, including in policy formulation. The U.S. will:

- Ratify and uphold the International Labor Organization's Indigenous and Tribal Peoples Convention (ILO C169) and meaningfully uphold the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP);
- Make free, Prior and Informed Consent (FPIC) an institutional requirement regarding any federal actions that affect the lands, livelihoods, culture and spirituality of American Indian and Alaska Native tribes and Indigenous Peoples. It will similarly be applied to U.S. public funding outside the United States;

[2] See The Principles of Environmental Justice Principles, Drafted and Adopted by the First National People of Color Environmental Leadership Summit in 1991 in Washington, DC, and the Jemez Principles for Democratic Organizing.

- Embed these instruments as part of a broader Climate Equity Accountability System for federal policies addressing climate change and environmental protection.

The U.S. commits to ensuring that climate action advances gender equality:

- The U.S. will integrate intersectional gender analysis into all climate change plans and policies;
- The guidance and oversight of the White House Gender Policy Council, and the appointment of a national gender and climate lead, will ensure principles of intersectional gender justice are considered and applied in all climate action;
- A Federal Interagency Working Group on Human Rights, Gender Equality, Social Inclusion, and Climate Change, established by the Secretary of State, will prevent and respond to the intersectional social impacts of climate change globally via global environmental justice impact mapping and the requirement of intersectional data collection.

The U.S. commits to ensuring climate action respects, protects, and fulfils human rights.

A fair share mitigation target

As a wealthy country with the largest economy in the world and the greatest historical emissions of greenhouse gases, it is fair and ambitious for the U.S. to make the largest overall contribution to addressing climate change. This is particularly true since communities around the world, and especially in developing countries, are struggling to meet basic needs and cannot be expected to address climate change at the same level as wealthier countries. The U.S. recognizes that its longstanding economic and trade policies have unjustly deprived countries of the resources needed to address multiple crises, including but not limited to the climate crisis, undermining their capacity to provide the basic services and social protections necessary to build resilient societies.

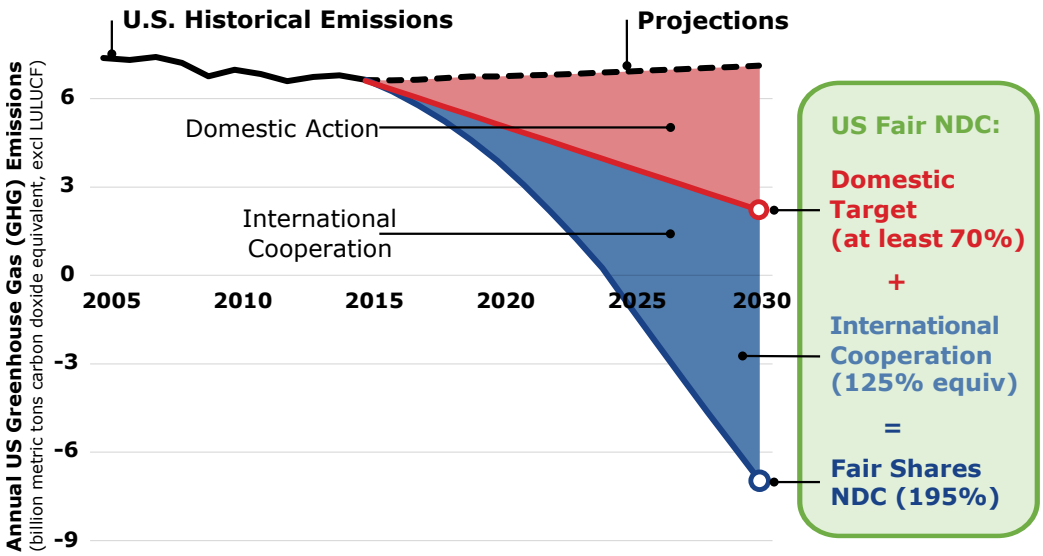
The U.S. has employed an analysis for the scale of its contribution that considers each country's responsibility for the buildup of greenhouse gases and its capacity to act on climate change, while exempting the emissions and incomes of the poorest in each country, including in the United States. This fair shares approach concludes that the U.S. is responsible for 39% of the global total effort to be consistent with its share of global responsibility and capacity. This approach has been endorsed by hundreds of social movement groups and civil society organizations and networks around the world, including many from the U.S.

The total U.S. fair share of the global effort required to keep emissions within a 1.5°C-consistent mitigation pathway[3] is equivalent to a GHG emission reduction of 195% below the 2005 level by 2030. This share will be met in a manner that does not place an undue and unjust burden on people living in poverty, within and outside of the U.S.

[3] Specifically, the P1 pathway from the Summary of Policy Makers of the IPCC's Special Report on 1.5°C.

- The U.S. commits to an economy-wide target (excluding Land Use, Land Use Change and Forestry, LULUCF) of reducing GHG emissions domestically by at least 70% below the 2005 level by 2030.
- International cooperation and support will complement this domestic contribution at a scale sufficient to enable additional mitigation outside the U.S. equivalent to an additional 125% of U.S. 2005 emissions. To the extent that the U.S. fails to achieve 70% domestic reductions, this international contribution would need to correspondingly increase to achieve its fair share.
- An initial good faith public climate finance contribution of at least $800 billion for the 2021 to 2030 period – equally split among mitigation, adaptation, and Loss and Damage – will be made. This figure is half of the $1.6 trillion that represents an extremely conservative value, well below any range of plausible estimates of the U.S. fair share of mitigation, adaptation, and Loss and Damage finance over the 2021-2030 period (see Annex).

Figure 1: The U.S. Fair Share



The United States, as a wealthy country with a long history of high emissions, can only do its fair share if it acts ambitiously within its own borders, while at the same time helping poorer countries to achieve their own rapid decarbonization. Source: https://usfairshare.org

A transformational commitment to international climate finance

The international climate finance commitment – $800 billion over the period 2021 to 2030, split equally among mitigation, adaptation, and loss and damage – is put forward with the full knowledge that this is only a down payment on the U.S.'s true fair share; it is a good faith signal that the U.S. is taking an earnest step. Meeting the full fair share would require significantly more public finance than outlined here, exceeding the $1.6 trillion figure, which is estimated to be well below the U.S. fair share of any plausible range of actual finance needs. To promptly ramp up this commitment, the U.S. will implement

measures to help refine assessments of the actual mitigation, adaptation, and Loss and Damage finance needs, help put proper public finance mechanisms into place, redirect finance that is currently prolonging the unviable fossil fuel-based economy, and – with the full partnership of recipient countries – help ensure multilateral institutions and mechanisms can deploy the needed resources rapidly, effectively and equitably.

This commitment is central to the shared global effort to address the greatest human rights crisis of our time, climate change, by enabling all countries to achieve their Paris commitments in a manner that respects, protects, and fulfils human rights and, minimally, does not exacerbate existing inequalities. This commitment and its operationalization also uphold the U.S.'s commitment to multilateralism as the appropriate mechanism for addressing global challenges such as climate change. The U.S.'s climate finance will be additional to other development assistance and given as grants so as to not exacerbate the debt burdens of developing countries.

- This Fair Shares NDC establishes the U.S. commitment to achieve an additional 125% of its emissions reductions below 2005 levels through international support and cooperation in a manner that does not offset its domestic reduction responsibility.
- The U.S. recognizes that it has a moral and legal responsibility to significantly increase climate finance for international adaptation, providing financing to help developing countries deliver on their NDCs and National Adaptation Plans, and build on them in ways that create climate resilient societies.
- The U.S. intends to make a specific funding allocation for Loss and Damage, additional to both existing climate finance for adaptation and aid for disaster relief, and encourages other governments to do the same.
- The U.S. recognizes the full scale of its fair share of climate finance, and that of other developed countries, is considerably higher than the commitments made here. The U.S. will contribute to processes and mechanisms to clarify the scope of the need and most effective pathways for distributing funds, and commits to ramping up its allocations in accordance with new data to approach its fair share.
- The U.S. will enact other measures that reduce injustices in the global economy and increase the public investment capacity of developing countries, such as within the international monetary regime and tax systems.

Addressing Adaptation and Loss and Damage in the United States

The U.S. is already experiencing considerable climate change impacts, with more frequent and intense extreme weather and climate-related events. Further disruption will exacerbate the existing challenges posed by aging and deteriorating infrastructure; stressed ecosystems; and economic, racial, and gender injustice. U.S. climate commitments must encompass adaptation and Loss and Damage within the U.S.

Adaptation action should take an inclusive, gender-responsive, participatory and fully transparent approach that is based on the best available science and traditional and indigenous knowledge, taking into particular consideration vulnerable groups, communities and ecosystems. Adaptation should be rooted in

principles of justice and equity and should be developed through the leadership of historically marginalized communities, Indigenous Peoples, people of color, youth, women, and the environmental justice communities on the frontlines of the environmental and climate crisis.

The U.S. also acknowledges the central importance of measures to address the Loss and Damage caused by climate change impacts that go beyond what communities, economies and ecosystems can adapt to, including both extreme events (e.g., hurricanes, droughts, floods/rain events, extreme heat) and "slow onset" processes (e.g., sea level rise, desertification, glacial retreat). Through community-led, participatory processes, the U.S. will:

- Adopt a comprehensive approach to building climate resilience domestically through improved infrastructure and healthy ecosystems to reduce the severity and cost of climate change impacts;
- Develop comprehensive approaches to protect the human right to water and the right to food and food security;
- Take proactive steps to ensure that disaster-planning and recovery equitably address (and do not exacerbate) inequalities.

2. Mitigation within the U.S.

The U.S. domestic emissions reduction target is 70% by 2030 from 2005 levels, or 5 billion metric tons of carbon dioxide equivalents ($GtCO_2e$). This target excludes LULUCF. For this target to represent the U.S. fair share, it must be considered in conjunction **with the additional target to support mitigation abroad, equivalent to another 125% reduction by 2030 from 2005 levels**. Given the scope of action necessary to achieve the U.S. fair share, the domestic target will be achieved through multiple measures – executive action, the regulatory power of the EPA and other federal agencies, and through the White House working with the U.S. Congress to pass relevant legislation.

The U.S. will advance and build on Executive Orders already issued in 2021 to formalize and implement, through both domestic and diplomatic actions, a managed phase out of fossil fuels in line with the Paris Agreement's 1.5°C goal by ending all stages of fossil fuel development and supporting just transitions for all communities and countries. The U.S. will take similarly ambitious, equitable, and comprehensive measures across other sectors of the economy, including but not limited to transportation, buildings, industrial processes and product use, agriculture, LULUCF, and waste. All of these measures will be taken with the full prioritization of the need for a just transition, and promotion of environmental justice principles and gender equality.

As a first step, the White House will immediately declare a national climate emergency under the National Emergencies Act and trigger the Defense Production Act and other relevant emergency statutes, acknowledging that the climate challenge is similar in scale to a wartime mobilization. This emergency declaration also provides the basis for igniting a clean energy manufacturing economy that will generate millions of good-paying, union jobs; the reinstatement of the crude oil export ban; as well as enabling additional measures described below.

The U.S. recognizes that the Department of Defense (DOD) is currently the world's single largest producer of greenhouse gas emissions and acknowledges the need to fully and transparently account for all DOD-related emissions. To that end, the U.S. will improve its greenhouse gas inventory to take full account of military emissions, including those of aircraft taking off from overseas bases, which account for over half of military fuel consumption. The White House will work with Congress to reduce military spending by at least $200 billion annually, freeing up hundreds of billions of dollars for climate investment and other urgent needs.

Phase down fossil fuels and polluting infrastructure

Recognizing that the UN's 2020 Production Gap Report warns the world to reduce global fossil fuel production by at least 6% per year between 2020 and 2030 while governments are still planning an average annual increase of 2% per year, the U.S. fair share of global efforts is magnitudes higher. The U.S. will advance and build on existing elements of 2021 Executive Orders to formalize, through both domestic and diplomatic actions, an orderly phasing down of fossil fuels in line with the Paris Agreement's 1.5°C goal. The U.S. will end expansion, phase down production, and support just transitions for all communities and countries. The U.S. will:

- Cancel permits for all fossil fuel infrastructure under development, including the Dakota Access Pipeline, Line 3 at the Headwaters of the Mississippi River in Northern Minnesota, Line 5 in Michigan-Wisconsin, and the Mountain Valley Pipeline in Virginia-West Virginia.
- Instruct all federal agencies to deny permits for all fossil fuel infrastructure projects, including but not limited to pipelines, import and export terminals, refineries, storage facilities, and petrochemical plants, including the Bluewater Oil Terminal, the Texas GulfLink oil export terminal, and the Formosa Plastics petrochemicals project in Louisiana.
- Reinstate the crude oil export ban on an annual basis by declaring a national climate emergency under the National Emergencies Act. A 2020 report found oil exports have increased by 750% since December 2015.
- Ban fracking and, via Executive Order, order the EPA to issue a strict pollution prevention rule for the oil and gas sector, effectively ending harmful energy extraction.
- Phase out the oil and gas leasing program on federal lands. The current temporary pause on new oil and gas leasing on public lands and waters, already implemented by Executive Order, will be made permanent.
- Implement a science-based national pollution cap through an Executive Order directing the EPA to establish a National Ambient Air Quality Standard (NAAQS) for greenhouse gas pollutants at 350ppm CO_2 or less under the Clean Air Act. On this basis, the EPA will issue rules to limit emissions from power plants, motor vehicles, planes, ships and trains, and implement a ban on the sale of all new fossil fuel light and medium duty vehicles by 2030.
- End fossil fuel subsidies. Through Executive Order 14008, the White House has already moved to eliminate fossil fuel subsidies from all future budget requests to Congress, and will work with Congress to expeditiously and comprehensively remove all direct and indirect fossil fuel subsidies from the U.S. tax code and any other government policy and practice. Fossil fuel

subsidies include any and all fossil fuel-based technology, including carbon capture and storage (CCS) and carbon capture utilization and storage (CCUS).

- End new financing for all parts of the fossil fuel supply chain (including for gas), stop new U.S. fossil fuel infrastructure and production support within 90 days of the issuance of this NDC across all government institutions, and work with other nations to end fossil fuel financing. This will apply across the oil, gas, petrochemical, and coal value chain (i.e. including upstream, midstream, and downstream segments), as well as for associated facilities and related infrastructure, and should apply to all funding streams and modalities.
- Apply the aforementioned financing restrictions to all U.S. public finance institutions, including the U.S. Export-Import Bank, U.S. International Development Finance Corporation, U.S. Trade and Development Agency, Millennium Challenge Corporation, United States Agency for International Development, and other relevant institutions. This will also apply to U.S. participation in multilateral institutions, including the IMF and the multilateral development banks (MDBs), and to indirect financing provided through financial intermediaries and development policy finance.
- Formally mandate the Federal Reserve and Secretary of the Treasury to manage climate risk, building on the work of its new Supervision Climate Committee and Financial Stability Climate Committee. Any further investment or reinvestment of financial reflows under the Federal Reserve's Securities Purchase Programmes (SMCCF, Main Street Lending Program, Primary Market Corporate Credit Facility) will explicitly exclude corporate bond purchases from companies producing or invested in fossil fuels, and the Federal Reserve will be instructed to sell off remaining fossil fuel bonds on its balance sheet.

Ending support for other forms of dirty energy

The U.S. will cease to directly or indirectly subsidize or otherwise support other forms of dirty energy. Dirty energy includes nuclear energy and industrial-scale bioenergy, including biomass, biofuels, factory farm gas (also known as biogas), wood pellets, and waste-to-energy. The White House will take any and all measures to work with Congress to remove dirty energy subsidies from the U.S. tax code.

Infrastructure, industry, and buildings

The U.S. will support the transformation of transportation and other infrastructure, industry and building efficiency and electrification. The U.S. will:

- Utilize the Defense Production Act to mobilize manufacturing of clean energy infrastructure, energy efficiency technologies and storage, smart grid infrastructure and transmission lines, and electric vehicles while generating millions of good-paying, union jobs;
- Instruct the EPA and National Highway Traffic Safety Administration to revise fuel efficiency standards, phasing in a zero-emissions standard for light- and medium-duty vehicles beginning in 2026, leading to a zero-emissions standard for all new light and medium duty vehicles no later than 2030, and zero emissions for new heavy duty (freight) vehicles by 2035;

- Work with Congress to pass a Public Banking Act allowing states to create green infrastructure banks with a mandate to provide loans, loan guarantees, grant, and equity financing to accelerate the development of new public transit infrastructure, green manufacturing, efficiency improvements to public buildings, and renewable energy generation and storage;
- End new fossil fuel infrastructure in the building and transportation sectors, while providing resources to phase out fossil fuels through investment in electrification of transportation, as well as replacing fossil fuel heating, cooling, and hot water with electric appliances in buildings. These resources should prioritize investment in low and moderate income communities.

The White House will work with Congress to:

- Achieve high-quality, deep energy efficiency retrofits of 75% of all existing public and private buildings by 2040 and 100% by 2050, while meeting applicable building safety standards by advancing an extensive investment program, including significant increases and reforms to the Low-Income Home Energy Assistance Program and Weatherization Assistance Program, and reauthorization of the Department of Energy Energy Efficiency & Conservation Block Grant program. A zero-emissions standard for new buildings will also be adopted.
- Advance the BUILD GREEN Infrastructure and Jobs Act to invest US$500 billion over ten years in state, local, and tribal projects to electrify public transportation, install electric vehicle (EV) charging infrastructure nationwide, and expand associated renewable energy generation capacity.
- Shift federal surface transportation priorities from highways to public transit, benefiting communities broadly but with particular benefits for people of color and low-wealth households. Public transportation (including school buses) will be transformed to zero-emission fleets by 2030, and rail will be electrified by 2030. Buyback incentives for internal combustion engine vehicle owners will accelerate decarbonization of the existing fleet, with priority given to lower-income households.
- Advance just, climate-resilient, and distributed energy systems by financing and providing technical support to communities and local governments to develop solar and other renewable generation, storage, microgrids, and supportive transmission lines.
- Move to ratify the Kigali Amendment to the Montreal Protocol, phasing out the production and consumption of hydrofluorocarbons, as already begun under Executive Order 14008.

Aviation and shipping

As efforts to reduce emissions from international aviation and shipping under the International Civil Aviation Organisation and the International Maritime Organisation are inadequate, these sectors are included within the NDC. The U.S. government will:

- Implement a decarbonization plan for the aviation sector with a mandate to ensure fuel efficiency improvements of at least 3.5% annually, and achieve the electrification of all short-haul flights by 2040 and long-haul flights by 2045. Additional measures will include promotion of air travel alternatives such as high-speed rail and taxation on private jets and frequent fliers;

- Instruct the EPA to set a goal-based, operational life-cycle carbon dioxide equivalent (CO_2e) intensity standard of 80% CO_2e reduction by 2030 (from 2008 levels) and 100% CO_2e reduction by 2035 for vessels sailing in U.S. waters or calling on U.S. ports. Doing so would be in line with the rejoining of the Paris Agreement and would place the industry on the path to total decarbonization;
- Mandate zero ship emissions at all US. ports. By 2030, all ships at-berth or at-anchor at U.S. ports should emit zero GHGs and zero criteria pollutants. The White House will consider introducing progressive year-over-year targets to guide the transition.

Agriculture, forests, and oceans

As noted in the IPCC 1.5°C Report, emissions reductions alone will not be sufficient to stabilize the climate, which will also require the sequestration of CO_2 in the atmosphere. The U.S. commits to protecting forests and natural ecosystems, as well as reforming agricultural practices to sequester carbon, though these measures will not be used to justify or offset ongoing emissions. Furthermore, the predominant model of industrial agriculture is itself a major contributor to GHG emissions. The U.S. commits to implementing a just transition in agriculture that recognizes the right to food and reduces emissions while simultaneously providing better livelihoods for farmers and farmworkers and protecting animal welfare. To these ends, the U.S. government will:

- Take immediate steps in close consultation and coordination with all impacted stakeholders under the Executive Order on Tackling the Climate Crisis at Home and Abroad, which sets a national conservation goal with robust safeguards to conserve 30% of U.S. lands and oceans by 2030, to scale up forest protection, rewild, and restore degraded forests; to preserve, restore, and conserve freshwater and marine wetlands and peatlands; and to designate more marine protected areas, while maintaining traditional uses of these areas by local communities for food and sustenance;
- Move to ban all commercial old-growth and roadless forest logging on public lands, and establish a moratorium on commercial logging on all public lands;
- Remove federal financial support and taxpayer subsidies for new and existing industrial scale bioenergy development, including biomass, biofuels, factory farm gas (also known as biogas) and other biomethane production, and related infrastructure such as sawmills;
- Work with Congress to secure additional and appropriate financial support for restoration and conservation through the Land and Water Conservation Fund, under provisions set out in the Great American Outdoors Act. New funds will be provided under this mandate, and through a revised Indian Tribal Land Acquisition Program, for public land acquisition to increase access for Indigenous Peoples and other historically marginalized communities.
- Work with Congress to remove tax subsidies for the forest industry and forest landowners, except those providing economic incentives to transition away from polluting mills and industrial forest extraction. The remaining incentives will be balanced by just transition funding for non-landowners and historically marginalized communities, including support for green jobs in outdoor recreation and forest conservation and restoration.
- Set a goal that the agricultural sector will be a sink rather than a source of greenhouse gas emissions. This transition will be supported by investment in agroecology, organic agriculture,

and regenerative practices to restore soils, promote biodiversity, and significantly reduce the use of synthetic fertilizers and pesticides. Supporting family farmers, particularly farmers of color, will be a priority as part of this just transition, especially in ensuring access to farmland.

- Issue an Executive Order to enact a moratorium on large agribusiness mergers and increase antitrust enforcement in the food and agriculture sector.
- Conduct a root and branch review of the U.S. farm subsidy system, including reforms of the Environmental Quality Incentives Program to bar participation of concentrated animal feeding operations (CAFOs), incentivize transition to organic agriculture, inform shifting support from agribusiness towards family farms and agroecology; ending and providing restitution for historic discrimination against people of color in agriculture programs; and enacting protections for farm workers (including strengthening the Agricultural Worker Protection Standard) to ensure safe working conditions, a livable wage, and other labor protections, regardless of immigration status.
- Work with Congress to substantially increase funding for the Conservation Stewardship Program and the Conservation Reserve Program, retool the programs to support practices that help mitigate climate change such as those in the Climate Stewardship Act and the Agriculture Resilience Act, and set aside a portion of these increases to support participation by socially disadvantaged farmers as defined in the 2501 program.
- Significantly increase funding for the Organic Research and Extension Initiative, Sustainable Agriculture Research and Education program, Agriculture and Food Research Initiative, and Organic Transitions Program with a focus on effective climate change strategies and climate-resilient seeds and animal breeds.
- Provide funding and support to train public university extension, Natural Resources Conservation Service, and other agency personnel on organic and regenerative agriculture.
- Issue an Executive Order to place an immediate moratorium on the construction of new large-scale CAFOs, listing CAFOs as pollutants under the Clean Air Act and reducing the minimum size requirement for CAFOs to qualify as a regulated source point under the National Pollutant Discharge Elimination System permitting program. Mandatory targets will be introduced for greenhouse gas emissions reductions for the animal agriculture sector, based on a comprehensive life cycle assessment approach.
- Issue an Executive Order to place an immediate moratorium on the permitting or construction of marine finfish aquaculture facilities in the Exclusive Economic Zone of the U.S. (EEZ) and directing the Secretary of Commerce, the Secretary of Agriculture, the Secretary of Interior, the Secretary of the Army, the Administrator of the EPA, and all other involved federal officials to immediately cease any actions toward the development of marine finfish aquaculture in the EEZ.
- Issue an Executive Order to reduce greenhouse gas emissions associated with the federal government's food procurement (including the Department of Defense) by 25% by 2030.

Given the high level of uncertainty underpinning LULUCF projections, as well as the difficulties of asserting strict fungibility between fossil and land-based carbon, the U.S. will exclude LULUCF from its overall emissions reduction target. The U.S. will account for LULUCF emissions and sinks separately in relation to a 2005 base year, and will continue to use a production approach to account for harvested wood products. Noting the shift from current practice, it is likely that the overall U.S. emissions reduction

target of at least 70% below its 2005 level by 2030 would be substantially higher if LULUCF were included in these figures.

A just transition

The actions to which the U.S. is committing in this NDC involve significant transformation throughout all sectors of the economy. The energy transition, agricultural transformation and more must be managed to minimize negative socioeconomic impacts on workers and frontline communities, and to advance gender equality. The U.S. will undertake efforts to ensure a just transition by:

- Establishing a Presidential Commission on Energy Democracy and Renewable Energy Futures, which will work with frontline communities to develop "a national blueprint for public and community control of a clean, renewably-sourced, and more resilient energy system, including distributed energy generation as part of a broader transition to public and community control of the energy system;"
- Mandating the Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization to develop a comprehensive national program that guarantees support and protection for affected communities and workers and equitable access to new opportunities, through meaningful consultations with unions, workers, Indigenous Peoples, and frontline community organizations, and redress gender-based violence across industries, from sexual violence in mining towns to the exploitation of women farmworkers by industrial agriculture. This program should be expanded to include all communities impacted by the transition to a clean energy economy, including oil and gas production, transportation, and refining;
- Working with Congress to pass legislation, regulation, and support measures to provide salary guarantees, housing assistance, healthcare, reskilling, pension, and early retirement support to workers and communities affected by the transition away from fossil fuels. Measures will integrate pay equity, paid family leave, and child care as essential to the transition, and contribute to a broader recognition of the value of care work to a climate-compatible economy;
- Engaging communities impacted by the energy transition in dialogue to envision economic revitalization plans, prioritizing the application of the Just Transition Principles, Feminist Green New Deal Principles, and other authentic articulations of global climate justice. Investments will occur in communities transitioning away from a reliance on dirty energy to help diversify local economies, stabilize tax and other revenue for public services, and address historic inequities;
- Establishing national employment programs to restore abandoned oil wells, repair water pipes, construct clean energy charging infrastructure, and retrofit and electrify schools, residences and large buildings;
- Mandating the Rural Utilities Service under the Department of Agriculture to undertake a rural cooperative coal-debt buyout and debt-forgiveness program on terms that commit these providers to 100% solar and wind generation by 2030;
- Catalyzing and participating in focussed global forums on how to support the energy transition, end expansion of the fossil fuel industry, and shift from the production of coal, oil, and gas in a way that embraces and implements principles of human rights and equity and justice between and within countries;

- Extending just transition principles and programs from domestic to diplomatic action by supporting — with funding and technical assistance — other countries' efforts to diversify away from and exit fossil fuels and other dirty energy while developing their economies and adapting to climate change;
- Mandating all federal agencies and federal utilities, including the Tennessee Valley Authority and Power Management Authorities, to transform their energy portfolios to be 100% clean and renewable energy by 2030, including establishing rooftop and community solar on federal property and using their federal procurement powers to advance all-electric vehicle fleets, building retrofits, and other relevant climate-saving products.

3. International climate finance and other international support measures

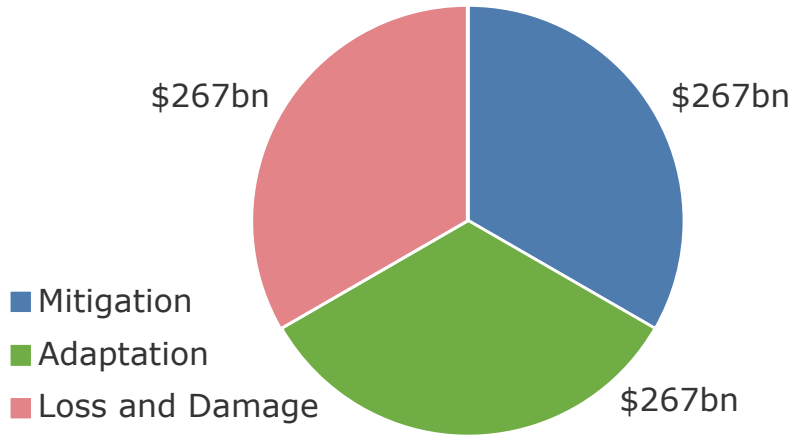
The following commitments are put forward as a down payment on the U.S.'s true fair share, a good faith signal that the U.S. is taking an earnest step. Meeting the full U.S. fair share will require significantly more finance than outlined here, and can only be achieved within a multilateral process. To promptly ramp up this finance commitment toward its fair share, the U.S. will: implement measures to help refine assessments of actual mitigation, adaptation, and Loss and Damage finance needs; put finance measures and mechanisms in place that will help generate the necessary resources; redirect finance that is currently prolonging the unviable fossil-fuel-based economy; and – with the full partnership of recipient countries – support multilateral institutions that can deploy the resources rapidly, effectively and equitably.

Overall international climate finance targets

In the immediate term, the U.S. commits to delivering an $8 billion contribution to the Green Climate Fund (GCF). This comprises $2 billion to fulfill the original pledge to the GCF's Initial Resource Mobilization (IRM), and $6 billion for a new contribution to the GCF-1 replenishment period that doubles the IRM pledge amount, in line with other contributor countries. The U.S. also commits to significantly scaling up from this contribution level for GCF-2 and future replenishments.

Over 2021-2030, the U.S. commits to providing at least $800 billion in public climate finance, with annual financing ratcheting up from current levels sufficiently rapidly to meet these figure: $267 billion for mitigation, $267 billion for adaptation finance to the GCF and other funds established under the UNFCCC, and a further $267 billion for Loss and Damage finances.

Figure 2: The U.S. Climate Finance Commitment (total for period 2021-2030)



The U.S. public climate finance commitment for the period 2021 to 2030 totals $800 billion, equally split among mitigation, adaptation, and Loss and Damage, and represents a good faith down payment toward the U.S.'s true fair share of climate finance needs.

The U.S. recognizes that this sum does not reflect a true U.S. fair share of the global public finance needed to adequately address the climate crisis. Rather, this should be seen as merely a down payment toward its actual fair share, which will exceed $1.6 trillion over 2021-2030, a conservative figure well below any range of plausible estimates of the U.S. fair share of mitigation, adaptation, and Loss and Damage financing.[4]

In addition to committing at least $800 billion in public climate finance by 2030, the U.S. commits to work with the global community, emphasizing stakeholders from recipient countries, to more precisely determine the true finance needs for mitigation, adaptation, and Loss and Damage. The U.S. further commits to revise its finance commitment upwards, in a timely manner, based on the results of this multilateral process, with other contributor countries expected to make similar fair-share efforts.

The U.S. climate finance commitment in this NDC will be met through public financing, which offers accounting clarity and acknowledges the importance of unconditional public finance to provide public goods, especially for the world's most vulnerable communities. Direct budgetary appropriations are intended as only one component of the public finance and support actions announced as part of this NDC. Other sources of finance and international support may include:

- Redirection of U.S. government financing for fossil fuel projects and related infrastructure overseas, as well as the strengthening of environmental and human rights safeguards on U.S. overseas aid and development finance;
- Re-direct military spending by at least $200 billion annually;

[4] See Annex "Climate Finance Methodology" for details on sources and calculations behind these figures.

- Support for a comprehensive climate debt relief and green recovery package, including new issuance of up to $3 trillion in Special Drawing Rights (SDRs) by the IMF;
- U.S. leadership in establishing a multilateral currency swap facility available to all countries;
- Reforming the U.S. and global tax systems through global tax cooperation under the auspices of the U.N. to stop avoidance and evasion by large corporations and ultra-wealthy individuals, and ensuring that the resulting public revenues are directed towards expenditures compatible with the Paris Agreement and U.N. Sustainable Development Goals.

This NDC pertains to public finance from the U.S. government. Significant parallel efforts, including through regulatory measures, must ensure private investments are climate-friendly and do not fuel green land-grabbing, resulting in the dispossession of Indigenous Peoples and rural communities.

Mitigation finance measures

The residual portion of the U.S. mitigation fair share that cannot be met domestically is equivalent to a 125% reduction in U.S. 2005 greenhouse gas emissions in 2030, a reduction reaching 9 gigatonnes (billion metric tons) CO_2e per year by 2030, or close to a cumulative 53 gigatons CO_2e between 2021 and 2030 (see Figure 1). To the extent that U.S. domestic reductions fall short of 70%, this international contribution would need to be correspondingly greater. Estimating the cost per ton of CO_2e reductions results in a broad range, subject to a great variety of methodological difficulties, uncertainties, and ethical and political questions (see Annex). The U.S. is thus operationalizing its international mitigation commitments by:

- Committing to a public mitigation finance contribution of $267 billion for the 2021 to 2030 period, based on an equal split among mitigation, adaptation, and Loss and Damage of the down payment of $800 billion towards the actual U.S. fair share. The U.S. recognizes that its *actual* fair share exceeds the value of the very conservative estimate of $1.6 trillion, which lies well below even the lower end of any plausible range of U.S. fair shares of climate financing (see Annex);
- Pledging to revisit this commitment and revise it upwards in the future as uncertainties on the scale of needed finance are resolved, understanding that this figure does not represent a true "fair share";
- Contributing to putting in place and strengthening the multilateral mechanisms, institutions, and global political processes required to equitably allocate the necessary resources and direct them productively, which would also lead to the U.S. revisiting the scale of its commitment.

Adaptation finance measures

The need for adaptation rises steeply with the severity of climate change impacts, and likewise the need for adaptation financing will vary considerably according to the pace and scale of mitigation. The most comprehensive survey now available is the UNEP Adaptation Finance Gap Report, which estimates that $140–$300 billion per year in adaptation financing will be needed by developing countries by 2030, but also recognizes that this is a considerable underestimate in view of the limits and constraints of the underlying methodologies. Given that the U.S. share of the global capacity and responsibility is about

39% (per the U.S. Fair Shares analysis), the U.S.'s fair share of even this low figure for adaptation finance in the 2021 to 2030 period would be at least $423 billion (see Annex). As a first step, the U.S. will:

- Commit to an adaptation finance contribution of $267 billion for the 2021 to 2030 period, matching the mitigation finance contribution, and recognizing the ultimate figure will be substantially higher (see Annex);
- Affirm that it will seek to balance mitigation and adaptation finance in its international commitments, given that adaptation finance has historically been substantially underfunded but is essential for the lives and livelihoods of many of the world's most vulnerable communities;
- Promote a near-term, pre-2025 adaptation finance goal by developed countries at the UNFCCC, emphasizing grant-based finance and increasing the share of such finance to Least Developed Countries (LDCS) and Small Island Developing States (SIDS);
- Propose that a specific, grant-based public finance goal for adaptation is established as a component of the new collective finance goal from 2025 onwards, as set out in Conference of Parties (COP) Decision 1/CP.21, paragraph 53.

Loss and Damage finance measures

Based on minimal provisional estimates (see Annex), the U.S. fair share of public Loss and Damage financing would amount to $20 billion in 2022, rising to about $117 billion annually by 2030 and summing to more than $600 billion cumulatively in the 2021 to 2030 period. Again noting that more comprehensive analysis is anticipated to further increase this figure, the U.S. will:

- Commit, as an initial step, to providing a Loss and Damage finance contribution of $267 billion for the 2021 to 2030 period, equal to the contributions for mitigation and adaptation;
- Unilaterally state, and work with other UNFCCC Parties to multilaterally agree, that paragraph 51 of UNFCCC COP decision 1/CP.21 in relation to the application of Article 8 of the Paris Agreement does not apply to the provision of Loss and Damage finance;
- Show international solidarity by supporting measures to establish an international Loss and Damage facility guided by and accountable to the Conference of Parties to the UNFCCC with funds additional to current climate finance commitments;
- Request that a Loss and Damage Gap Report (similar to UN Environment reports on adaptation and emissions gaps) be conducted to analyze the availability of public Loss and Damage finance against the needs of developing countries. The U.S. will then re-evaluate its commitment, bringing it into line with the findings of that assessment;
- Commit to measures promoting rehabilitation, noting that many aspects of Loss and Damage are not economically calculable, including human sickness and death, cultural losses related to the displacement of Indigenous populations, and biodiversity loss through species extinctions. The U.S. already formally recognizes the issue of climate-induced migration and displacement, and will in the near future provide meaningful support for climate migrants whilst upholding their human rights (see "climate-induced migration" below).

Climate finance quality

Recognizing that the effectiveness of climate finance is determined not only by its quantity but by its quality, the U.S. will promote sustainable and human-rights centered climate finance and demonstrate its commitment to learning and impact through transparent reporting mechanisms. The U.S. will:

- Promote transparent climate finance reporting that better reflects its real value, reporting contributions in grant equivalent terms, counting only concessional and grant financing towards UNFCCC climate finance obligations, publicly disclosing loan terms and full project lists, and reporting the share of climate finance it is contributing to LDCs and SIDS;
- Use its seat on the Board of Directors of international financial institutions (including the World Bank Group, African Development Bank, Asian Development Bank, Inter-American Development Bank, and European Bank for Reconstruction and Development) to advocate that these institutions immediately end direct and indirect investments in fossil fuels, industrial scale bioenergy (e.g. biomass, biofuels, factory farm gas, etc.), and deforestation;
- Use its IMF Board of Governors seat to vote for an end to IMF loan conditionalities, surveillance recommendations, and technical assistance that support fossil fuel expansion (including gas), fiscal austerity, regressive taxation, and privatization policies and, instead, advance just, green transition policies and debt relief solutions.
- Support creating stranded risk displacement financing facilities at multilateral development banks to support countries with fossil fuel contracts signed prior to 2020 that are causing fiscal pressures;
- Ensure that the Free, Prior and Informed Consent of Indigenous Peoples will be attained in relation to any climate and development finance that it provides, consistent with ILO C169 and the UNDRIP;
- Prioritize gender equality in its own climate and development finance by dedicating 20% of 'principal' and 100% of 'significant' climate funding to gender equality, and ensuring this funding directly supports local women's rights organizations and eco-feminist efforts;
- Advocate for gender-responsive approaches and best practice standards at international financial institutions, including the development of gender action plans and strategies, support for the development of gender-responsive sectoral policies and plans, capacity building support on gender and climate change, developing and integrating gender-responsive budgeting in national and climate change budgets, and the inclusion of gender-disaggregated data in climate finance reporting;
- Ensure that human rights are respected, protected, and fulfilled in relation to any climate and development finance it provides;
- Advocate for human rights-based approaches and best practice standards at international financial institutions, including support for the development of rights-based sectoral policies and plans, the development of rights-based environmental and social policies consistent with international agreements, and promotion of transparency, access to information, meaningful public participation, and access to remedy;
- Ensure transparency, access to information, meaningful public participation, and access to remedy in relation to any climate and development finance it provides.

International support beyond climate finance: climate, debt, and green recovery

While the U.S. commits to substantially increase its share of international climate finance, such measures will fall short of achieving a fair share of international support to developing countries. While seeking to improve upon the commitments included in this NDC, the U.S. will also supplement its formal climate finance contributions with a series of other justice, equity, and restoration-based measures aimed at redistributing global wealth in line with fair share efforts to limit global temperature rise to 1.5°C. Tackling sovereign debt crises and reforming the global tax and currency systems, trade rules, and intellectual property rights are at the core of what is required to achieve such a shift. In enacting these commitments with the explicit design to promote a green recovery aligned with the U.N. Sustainable Development Goals and the Paris Agreement, the U.S. will:

- Support a climate-debt relief and green recovery package to address the $2-$3 trillion financing gap in the developing world precipitated by the COVID-19 pandemic, incorporating comprehensive relief of unsustainable and illegitimate debt through a multilateral debt workout mechanism under the auspices of the U.N., and legislative measures to promote private debt restructuring;
- Support comprehensive debt relief through a common framework to be developed at the G20, including:
    - New allocations of up to US$3 trillion in SDRs (as called for by many civil society organizations, UNCTAD, and even the Managing Director of the IMF), and
    - A new and revised version of the Heavily Indebted Poor Countries (HIPC) Initiative, with fewer obstacles to eligibility, avoidance of attached conditionality, and greater ambition in terms of comprehensive debt relief;
- Welcome the possibility of an initial SDR allocation of $650 billion, consistent with the amount the Treasury Secretary can endorse without explicit congressional approval, as well as future issuances of SDRs in 2022 and beyond. The issuance of new SDRs builds upon U.S. and G20 support for a new SDR general allocation;
- Support significant reforms to the current system of allocating SDRs. The U.S. has already encouraged G20 members "to channel excess SDRs in support of recovery efforts in low-income countries, alongside continued bilateral financing." Various proposals on how to achieve this shift exist, including through the creation of a Global Public Investment Fund or the creation of a new IMF lending facility with expanded access limits and longer maturity periods and without macroeconomic conditionality;
- Seek to reform legal frameworks to strengthen incentives for private creditors to swap existing debt holdings (with a "haircut" on repayment amounts) for Green Recovery Bonds, given that half of developing country debt is owed to private creditors, mostly regulated by New York state and U.S. federal law;
- Support the creation of an international voluntary scheme to swap existing debts for new bonds whose receipts would be dedicated to fulfilling developing countries' Paris-aligned NDCs;
- Address industry interference in policymaking related to climate and debt, establishing a clear understanding of conflicts of interest and a framework to protect against them, prioritizing rights

holders' participation and those representing the public interest over those directly or indirectly representing industry voices.

Reducing debt to stimulate a climate-focused recovery is only one element of a broader package of reforms that could ensure developing countries have far greater resilience, including expanding universal healthcare and education, and strengthening social safety nets. In addition, the U.S. will:

- Broaden the coverage of U.S. Federal Reserve currency swaps;
- Support the establishment of a multilateral swap facility that could significantly improve the conditions for public investment in developing countries;
- Establish a U.N. Tax Convention to comprehensively address tax havens, tax abuse by multinational corporations, and other illicit financial flows through a truly universal, intergovernmental process at the U.N., with broad rights holders' participation. This Convention will thwart the existing (and growing) debt distress that undermines governments' abilities to respond to the climate and health crises.

Technology transfer

Alongside climate finance, "the transfer of, or access to, environmentally sound technologies and know-how" is the second core pillar of support measures that the U.S. is required to provide under the UNFCCC (article 4.5). This is not a question simply of selling and leasing goods, but rather requires knowledge sharing and usage rights to support "the development and enhancement of endogenous capacities and technologies of developing country Parties." The U.S. will drop its opposition to any mention of intellectual property in the Paris Agreement, which it now acknowledges has hampered progress in achieving technology transfers. The U.S.:

- Commits to reforming the international framework for intellectual property, recognizing that this will be differentiated according to countries' varying economic and social needs and technological capacity, and allowing for greater use of TRIPS Agreement "flexibilities" to enhance access to green technologies;
- Will operationalize this commitment through the provision of financial resources to address barriers caused by intellectual property rights, joint licensing schemes and patenting pools, and other cooperative models of intellectual property;
- Commits to taking all practicable steps to promote, facilitate, and finance the transfer of, or access to, environmentally sound technologies and knowhow to developing countries, to enable them to implement the provisions of the UNFCCC and its Paris Agreement. In this process, the U.S. will support the development and enhancement of the endogenous capacities and technologies of developing countries, including through financial support, and will support and strengthen cooperative action on technology development and transfer at different stages of the technology cycle.

4. Adaptation within the U.S.

The approach to adaptation below recognizes that it has multiple facets, ranging from immediate response needs arising from disasters to the need to cultivate the long-term resilience of communities in response to slow-onset events and associated economic and social disruption. Protecting the human rights and dignity of all people, including those facing climate-induced migration and displacement, is inherent to these approaches.

The U.S. recognizes that intersectional data about wide and far-reaching climate impacts is essential to the design and implementation of sustainable and effective adaptation measures. The 5th National Climate Assessment should prioritize marginalized populations and inform differentiated responses by acknowledging regional disparities – the Southern region of the U.S. experiences the most severe climate change impacts – and support the collection and use of comprehensive and intersectional gender and sex-disaggregated data and analysis.

The U.S. will adopt a whole-of-government approach to build climate resilience through investment for community-defined projects and strategies that, inter alia:

- Invest in climate-resilient infrastructure and reformulate disaster recovery programs to better serve frontline and marginalized communities and reduce climate gentrification (pre- and post-climate disaster);
- Guarantee universal access to clean water and sanitation;
- Restore and protect ecosystems and coastal regions and enhance biodiversity; and
- Clean up existing hazardous waste and abandoned industrial sites, and hold fossil fuel and other dirty energy companies responsible for damages and restoration.

Disaster resilience

The U.S. will adopt a comprehensive approach to building climate resilience domestically through improved infrastructure and healthy ecosystems to reduce the severity and cost of climate change impacts. Support measures will focus on protecting frontline and vulnerable communities to reduce inequalities and reverse climate gentrification, including:

- Establishing a $40 billion Climate Justice Resiliency Fund to protect the most vulnerable communities from the unavoidable impacts of climate change. The fund will support infrastructure improvements and ecological restoration of wetlands, forests, and other natural buffers, with resources targeted towards the most vulnerable communities;
- Directing the Federal Emergency Management Agency to prioritize sustainable building and traditional ecological management in targeted and frontline communities in its pre-disaster mitigation programs, especially the Building Resilient Infrastructure and Communities program;
- Ensuring all public infrastructure investment is screened for climate risks and exposure, while private investors will be required to assess climate risk at the portfolio level and in relation to project financing;

- Reforming the National Flood Insurance Program and other housing programs and subsidies to make it easier for residents to move from areas with high climate risk, including programs to support low-income homeowners by repurchasing homes at market value. New construction will not be permitted on areas designated "100-year flood zones;"
- Holding the fossil fuel industry accountable for public health and environmental degradation costs, in part by issuing an Executive Order directing the Departments of Justice and Interior to investigate and, as appropriate, seek damages and restoration for damages to public lands and waters, including the Gulf of Mexico.

Disaster recovery

Disaster planning and recovery processes will be community-led and participatory. The U.S. will take proactive steps to ensure that disaster recovery does not exacerbate racial inequity, gentrification, or gender inequality. The U.S. will:

- Protect the legal right to return for communities displaced by climate-induced disasters. If a place has been rendered unsafe by climate impacts, then the federal government will provide funding for equitable and inclusive planning processes that ensure impacted communities receive adequate compensation, affordable housing, and transportation;
- Design recovery programs to ensure that, in the words of *Southern Communities for a Green New Deal*, "rebuilding advances sustainability and green infrastructure, stimulates local economies (including localized food, water, energy, and transportation systems), and creates safer, energy efficient weatherized homes and buildings while protecting affordability and ensuring that communities that want to stay and rebuild can and do";
- Issue an Executive Order to direct the Department of Housing and Urban Development to establish a climate equity rubric in the Community Development Block Grant Disaster Recovery Program, requiring states to accurately assess the needs of low-income households and populations for the release of federal disaster aid for long-term housing recovery.

Water justice

The U.S. recognizes that access to clean, safe, and affordable water is a human right, and one that is threatened by the climate crisis. Significant new investment in U.S. water and wastewater systems is required to achieve water justice.

The U.S. will issue an Executive Order directing the EPA to develop a national safe drinking water action plan for community water systems regulated under the Safe Drinking Water Act (SDWA), and develop a priority remediation list to eliminate drinking water risks in counties with the highest SDWA violations, which are currently concentrated in communities of color. The EPA will also revise its policy guidance on water affordability.

To promote respect for the right to water, and recognizing the transboundary issues related to water, the U.S. will oppose efforts by multilateral institutions that undermine the human right to water through privatization and commodification.

The White House will work with Congress to:

- Pass the Water Affordability, Transparency, Equity and Reliability (Water) Act to fund programs to eradicate water pollution and protect drinking water and public fresh water sources, revise requirements concerning the clean water state revolving fund, and reauthorize grant programs for water infrastructure, including a grant program for household water well systems in rural areas;
- Develop and pass comprehensive legislation and related appropriations to upgrade wastewater and stormwater infrastructure, favoring green over gray infrastructure and prioritizing federal resources for the most vulnerable communities, starting in the Gulf South and the Atlantic coast.

Ecosystem resilience

Ecosystem restoration and measures to protect biodiversity are vital to enhancing climate resilience and are consistent with the mitigation goals for agriculture, forests, and oceans outlined above. Valuing "the integrity of all ecosystems, including oceans, and the protection of biodiversity" in line with the Paris Agreement, the U.S. will:

- Incentivize federal agencies, state authorities, and private landowners to implement natural adaptation measures, including but not limited to creating buffer zones to stop clear cutting along rivers and streams; supporting beach and dune nourishment; planting mangrove trees and seagrass to address sea level rise and violent storm impacts; supporting the proliferation of phytoplankton, submerged aquatic vegetation, and kelp forests; and protecting coral reefs and other marine ecosystems;
- Direct the U.S. Forest Service to update its policy on prescribed burning in line with the best available science and indigenous knowledge, as a means to reduce wildfire risks.

The White House will further work with Congress to incorporate the Rights of Nature into federal law.

Climate-induced migration and displacement

The U.S. will strive to protect the human rights of all people forced to migrate as a result of direct or indirect climate impacts and disasters, in addition to supporting vulnerable nations through increased adaptation financing. The U.S. will:

- Issue a cross-agency directive to establish a new system that preserves the human rights, health, safety, and dignity of all persons affected by climate-induced migration (internally displaced as well as global climate migration). This will be based on the principle that "all people, including refugees, deserve safe housing, healthy food, clean water, healthcare, and the freedom from over policing and exploitation of their labor no matter who they are and where they are from";

- Work with other governments, civil society, and academics to develop a comprehensive and rights-based approach to supporting people forced to migrate as a result of climate impacts and disasters, in recognition of the significant research, policy, and legal gaps with regards to the phenomena of climate-induced migration and displacement.

Annex: International Climate Finance Methodology

[Note: this is an explanatory annex not written in the voice of the U.S. government.]

The U.S. is unambiguously obligated to provide finance for mitigation and adaptation. The Paris Agreement (in Articles 9.1 and 9.4) as well as the UNFCCC (in Articles 4.3 and 4.4) make this legal obligation extremely clear. Moreover, the glacial pace of mitigation action has condemned millions to worsening and sometimes irreparable losses and damage as a result of climate change impacts. In response, the Warsaw International Mechanism for Loss and Damage was agreed in 2013, although at that meeting and subsequently the U.S. repeatedly blocked any associated financing mechanism, and opposed the idea that Loss and Damage could be the basis for any liability and compensation claims. This stance urgently needs to be reversed.

Even given an agreement on the U.S.'s overall fair share of the global effort, there is no definitive formula for calculating the public international finance associated with meeting this fair share. The size of this contribution depends not only on the fraction of the U.S. fair share that is achieved domestically, but also on the global cost of achieving the needed mitigation and adaptation, the global cost associated with loss and damage, and on how loss and damage finance are treated. Any definitive figure for each of these will depend on a range of factors, including uncertainties that cannot be resolved until we are actively engaged in a wholehearted climate transition.

For mitigation, for example, the size of the U.S. contribution will depend on the pace of technological change, and thus the trajectory of mitigation and technology costs, and on the speed with which policy preferences and political advantages for fossil fuels are removed. In this context, further methodological and definitional questions arise, which go far beyond the scope of the USA Fair Shares NDC. It can, in particular, be argued that the broad range of costs associated with the wholesale transformation implied by the required scale of mitigation, adaptation, and loss and damage response are best understood as "transition costs," and that these should in principle be shared in a manner that is fair to all.

Overall, climate transition costs will range beyond straightforward incremental techno-economic costs, encompassing the cost of major infrastructure expansions, building capacity, creating institutions, and diversifying economies. This point applies no less so to adaptation and Loss and Damage, especially with the knowledge that our understanding of the nature of the climate transition, the roles of international climate finance, and agreements on its proper uses, will certainly all evolve with time.

Given all this, the following proposal for a U.S. commitment toward its fair share of public climate finance is intended as a first step, one meant to signal a good faith effort. Subsequent steps must build on this first step, ratcheting up its commitment as uncertainties in the scale of the needed finance are resolved, and as the U.S., and the world community, put in place the mechanisms, institutions, and political processes required to allocate the necessary resources and direct them productively.

Below we provide conservative estimates of the costs associated with mitigation, adaptation, and Loss and Damage. Rather than providing a definitive answer to the question of what the U.S. should contribute to international climate finance, these figures are intended to provide an extreme lower bound assessment based on systematically selecting the *lowest plausible value* in a range of articulated approaches. Thus, the figures below should be considered as a minimal beginning, from which future upward corrections must soon be taken. The point of this approach is to be simultaneously transformative and conservative. The amounts being suggested are large, relative to any amounts hitherto provided or pledged, but they are also small when compared to any defensible estimate of the U.S.'s true fair share.

Mitigation

The fair shares framework[5] already sets out a solid basis upon which to calculate the mitigation component of U.S. climate finance. To recall, the U.S. fair share of the 2030 global mitigation effort is equivalent to a reduction of 195% of U.S. 2005 emissions. This reflects the finding that the U.S. fair share of the global climate effort amounts to 39%,[6] in accordance with its share of global capacity and responsibility. Committing to a 70% domestic reduction target leaves a residual portion of the U.S. mitigation fair share that is not being met domestically, one equivalent to a 125% GHG reduction by 2030. (A weaker domestic target would imply a correspondingly greater international contribution.) As the global effort increases over time, this international portion likewise increases, reaching a level equivalent to a reduction of 9 Gigatons [billion metric tons] CO_2e per year by 2030. Adding up the annual values over the 2021 to 2030 period, yields a cumulative value of roughly 53 Gigatons CO_2e overall in the decade to 2030 (shown as the blue wedge in figure 1).

Having established the total amount of mitigation to be achieved, the next step is to estimate the cost per ton of CO_2e reduced. Several cited figures are given in the table below, along with corresponding 2030 and cumulative 2021-2030 dollar figures implied to meet the U.S. fair share of public international mitigation finance.

Source	**$ per tCO2e/ton**	**2030 ($ billion) for 9 Gt CO_2e**	**2021-2030 ($ billion) for 53 GtCO2e**
GCF (total project value)	10.7	99	570
Stern and Stiglitz - lower estimate High-Level Commission Carbon Pricing	50	460	2,645
Biden Social Cost 2030	61	562	3,228
IMF (2°C carbon tax)	75	691	3,968
Stern and Stiglitz Social Cost High-Level Commission Carbon Pricing	100	921	5,291
Ricke et al. Social Cost	417	3,841	22,063

One approach (row 1 above) is to estimate the mitigation cost per ton of climate finance as currently being undertaken. The Green Climate Fund (GCF) project portfolio is one source of such data. The GCF has approved support for projects and programmes that claim to avoid a total of 1.8 billion metric tons of CO_2e emissions, although the results of an internal audit are likely to produce a downward revision of these numbers. The total value of those activities is reported as $30.3bn. In nominal terms, 64% of this amount, or $19.4bn, accounts for mitigation projects and programs. As stated above, the fraction of the U.S. fair share to be implemented through international cooperation would need to generate a cumulative mitigation impact of 53 billion metric tons of CO_2e emissions avoided between 2021 and 2030. Scaling up the value of the GCF's current mitigation portfolio ($19.4bn) from its anticipated mitigation impact of 1.8 billion metric tons of CO_2e to the 53 billion metric tons of CO_2e required to meet the U.S. fair share, yields

[5] https://usfairshare.org/backgrounder

[6] As detailed above (in the main NDC document), a 195% emissions reduction below 2005 levels by 2030 is equivalent to a total reduction of 14 billion metric tons of carbon dioxide equivalent (Gt CO_2e) in 2030. Given that *global* emissions reductions need that is consistent with a 1.5°C trajectory is 36 Gt CO_2e, the U.S. share of that global effort is 39%.

a total implied U.S. contribution of $570bn for the 2021-2030 period, reaching an annual amount of $99bn in 2030 (first row above), assuming the average finance required is indeed $10.7/tCO$_2$eq.

However, this is certainly an underestimate of future mitigation costs. This is true for many reasons, one of which is that scaling up action to keep global warming within 1.5°C will require mitigation initiatives that go far beyond the "cheaper" options that are mostly being funded today. Also, a number of other forward-looking means of estimating yield much higher per-ton mitigation cost estimates. Several of these are reviewed below, along with a discussion of the corresponding U.S. fair share of climate finance.

For instance, a more direct way to estimate mitigation costs is to estimate the actual cost of reducing and avoiding future greenhouse gas emissions through investments in renewable energy and other climate-related infrastructure. There are, however, serious definitional issues involved in such cost estimations. In particular, recent studies emphasizing that net mitigation costs are falling quickly[7] tend to estimate those costs in narrow terms that do not include social or just transition costs of any kind, even though such costs represent real barriers that would need to be overcome as part of the implementation of these mitigation initiatives.

As for the current prices of credits on carbon markets, which could offer another basis for calculation, these tend to be driven by environmental loopholes and the effects of corporate lobbying, and again reflect the minimal level of mitigation currently being undertaken, rather than the cost of financing measures consistent with the transformative change required to meet the 1.5°C climate goal.

The absence of many studies calculating the costs of implementing a 1.5°C-consistent mitigation scenario is one reason why estimates for mitigation costs are typically low. Nevertheless, for reference, we note a 2019 IMF report (fourth row above) that calculated that a global carbon tax of $75/ton would be consistent with meeting a 2°C target. Incorporating 1.5°C scenarios would suggest a higher figure.

The Report of the High-Level Commission on Carbon Prices chaired by economists Joseph Stiglitz and Nicholas Stern, is yet another in which the 1.5°C goal is simply passed over. Nonetheless, we report their range ($50-100/tCO$_2$) above (second and fifth rows)

The other major approach to the costing question is by way of the "social cost of carbon." Such estimates are typically used in determining the appropriate marginal costs of mitigation, relative to a given climate effort. The Biden Administration initially estimated a social cost of $51 per ton of carbon dioxide rising to $61 by 2030 (third row in table above), although estimates that extend out to 2030 vary between $14 and $187 depending on what assumptions are used. Global estimates could be higher still, according to a recent paper in *Nature Climate Change* (Ricke et al.), which estimates a median global social cost of carbon at $417 per ton (sixth row in table above). In fact, the Stern and Stiglitz Commission had noted that "many past modeling exercises to calculate the global social costs of carbon have produced numbers that probably underestimate these costs by very large margins."

The main drawback of using social cost estimates as a basis for mitigation cost estimates is that they too depend on a presumed level of climate action. Plainly stated, social costs are intended as a measure of the damage caused by climate inaction rather than the costs of mitigation action. Also, difficult political and ethical decisions substantially impact the results. Notably, the "discount rate" used in the calculation can radically impact the final results, in ways that have significant implications. And, of course, there is the matter of the treatment of non-market damages, and how a dollar value is to be put on losses such as loss of life and species extinction.

All told, different methods yield very different results. Techno-economic methods that largely ignore transition costs (and the 1.5°C goal) come in at the low end and methods based on damage costs, perhaps more honestly aiming to reflect what is at stake, come in much higher.

[7] There is a large body of literature that examines these questions. See, for example, Getting to Net Zero Carbon Emissions – and Even Net Negative – Is Surprisingly Feasible and Affordable and Solar is now 'cheapest electricity in history', confirms IEA

Below, we will reference this range to define a finance commitment put forward as a first step toward the U.S.'s full fair share.

Adaptation

As with mitigation, the U.S. has an ethical and legal responsibility to significantly increase climate finance for international adaptation, providing financing to help developing countries deliver on their NDCs and National Adaptation Plans.

The total adaptation need, and thus the need for adaptation finance, will vary considerably according to the pace and scale of mitigation. The most comprehensive survey now available is the UNEP Adaptation Gap Report 2020, which estimates that current adaptation finance needs in developing countries are about $70bn, and that $140–$300bn per year in adaptation financing will be needed by developing countries by 2030.

Recalling that the U.S. mitigation fair share in 2030 is equivalent to 39% of the global effort pathway, we can similarly generate an estimate for the U.S. share of adaptation finance. Applying this same percentage (39%) to UNEP's estimate of the global adaptation finance need, we estimate the U.S. fair share of this amount to be just over $27bn currently, rising to between $55bn and $117bn per year for adaptation financing by 2030. Assuming finance requirements ramp steadily up from current levels to this 2030 level yields an estimate of the cumulative global adaptation finance need of $1.1 trillion to $2.0 trillion over the 2021 to 2030 period, the U.S. fair share of which would be $423 billion to $766 billion.

Note, the UNEP report clearly acknowledges that the studies underlying these figures are based on analyses that lead to notoriously low estimates. They generally exclude the costs of a large set of "autonomous" adaptation measures that are presumed to be quietly shifted to those private citizens who can afford them, while those who cannot afford them instead endure the consequences. The studies invariably assume a level of adaptation that neglects the higher vulnerability of some people than others. They do not cover all sectors, and even within the covered sectors they do not cover all adaptation measures. They typically focus on "hard" (engineering) costs of adaptation, and exclude institutional, transaction, and opportunity costs, which are demonstrably large enough to be prohibitive. They do not cover all climate impacts, and rarely include cascades from direct to indirect impacts. For example, a dry spell might be expected to raise water prices, suggesting certain adaptation strategies. But the real world rarely behaves in a smooth orderly manner. Competition, profiteering, and hoarding that lead to price spikes and consumer panics might suggest a very different – and much more costly – set of adaptation strategies. Quickly, one enters a realm of impacts and potential adaptation measures where overwhelming complexity, profound uncertainty, and ethical dilemmas make the notion of monetizing adaptation unviable.

The UNEP report notes that addressing these limitations would change estimates enormously. A more complete coverage of sectors, impacts, and adaptation measures would multiply estimates by "a factor of two-to-three" and a more equitably defined threshold for adaptation by a "factor of two-to-four," while other corrections are not even vaguely quantifiable. ***Strung together, these limitations suggest that the above figure is not an estimate of adaptation costs, but rather an extremely conservative floor well below the range of plausible adaptation costs.***

We use this number below in that spirit.

Loss and Damage

We recognize the central importance of measures to respond to the "loss and damage" caused by climate change impacts that go beyond what communities, economies, and ecosystems can adapt to, including both extreme events (e.g., hurricanes, droughts, floods) and "slow onset" processes (e.g., sea level rise

or glacial retreat). These impacts are in no small part an outcome of the failure of the world's wealthy countries, including the U.S., to adequately invest in global mitigation and adaptation.

Many aspects of Loss and Damage are not economically calculable, including human sickness and death, cultural losses related to the displacement of Indigenous populations, and biodiversity loss through species extinctions. As noted in the 2019 Civil Equity Society Review on Loss and Damage, reparations in the face of such losses include not only financial restitution but also rehabilitation and guarantees of non-repetition. A variety of mechanisms will need to be put in place to accomplish these goals. The Biden Administration's recognition of the issue of climate-induced migration is an important first step, but it is vital that this is followed up with steps to dismantle the oppressive border regime and provide meaningful support for climate migrants to the U.S.

When economic losses can be measured, they are often dramatic. For example, the impact of Hurricane Maria on the Caribbean island of Dominica in 2017 caused loss and damage in the region of $1.4 billion, or 226% of its GDP. There is a real risk that the devastating impacts of climate change could destabilize countries, fuel conflict, and collapse whole economies.

The U.S. must break with its history of blocking international discussions of finance for Loss and Damage. Rather, the Biden Administration should make a specific funding allocation for Loss and Damage, additional to both existing climate finance for adaptation and aid for disaster relief, and it should encourage other governments to do the same. The Biden Administration should show international leadership by establishing an international Loss and Damage facility with funds additional to current climate finance commitments.

With the U.S. obstructing the path to climate finance for Loss and Damage until now, it has been left to civil society organizations and academics to estimate its potential scale. The 2019 Civil Society Equity Review on Loss and Damage, for example, recommends a minimum annual goal of providing developing countries $50 billion in loss and damage financing by 2022, ratcheting up to $150 billion by 2025 and $300 billion by 2030. The U.S. fair share of this figure (taking again 39%) would amount to some $634bn over the period from 2021 to 2030, ramping up from $20bn in 2022 to $117bn in 2030.

Like the adaptation cost estimates, these Loss and Damage cost estimates are extremely heavily caveated. The Civil Society Equity Review report cited these numbers as a "minimal goal," placing them in the context of other much higher estimates, and recommending that they be revised upwards as uncertainties are resolved and methodological improvements vetted. It specifically noted that many forms of loss were not quantified. Thus, and in the same spirit as the adaptation cost figures above, these figures are put forward as an extremely conservative floor well below the range of plausible Loss and Damage costs.

To help make improved estimates available, the U.S. should push for a Loss and Damages Gap Report (similar to UN Environment reports on adaptation and emissions gaps) to be conducted in order to analyze the need for Loss and Damage public finance in light of the ability of developing countries to address climate impacts. The availability of such an assessment would certainly affect the understanding of the global Loss and Damage need, and would allow the U.S., like other wealthy countries, to raise its Loss and Damage financing commitment to a level consistent with the need.

A U.S. climate finance commitment

Mitigation, adaptation, and Loss and Damage finance needs are each presented above with profoundly uncertain, wide-ranging estimates. The lower end of these ranges, in each case, cannot be taken as a low estimate, but rather as an extremely conservative floor that is well below the levels that will ultimately need to be realized as a global transformation of the necessary scale unfolds in response to climate change. With an ambitious intensification of mitigation, a precautionary investment in extensive adaptation, and justly distributed finance to cover inevitable Loss and Damage, much will become clear. In particular, the fundamental uncertainties in costs noted above will resolve as the true scale and nature

of the needed mitigation, adaptation, and Loss and Damage finance become evident, technologies evolve, institutions develop, financial systems reconfigure, political actors more cooperatively align, and global efforts more earnestly accelerate.

Given this, we note that the figures presented in the preceding sections represent an extremely conservative floor for the actual public finance needs. The U.S. portion of the ***lowest*** figures given for mitigation, adaptation, and loss and damage amount to $570 billion, $423 billion, and $634 billion, respectively, over the 2021-2030 period, totaling $1.6 trillion. As an initial good faith gesture, the U.S. should commit to contributing $800 billion cumulatively over the 2021-2030 period, i.e., 50% of the conservatively estimated floor well below the U.S. fair share of plausible finance needs, and to rapidly ramp up this contribution to match its actual fair share. Seeking the balance that developing countries have stated as a priority, the U.S. should distribute this initial commitment equally among mitigation, adaptation, and Loss and Damage finance, allocating $267 billion to each. We fully recognize that, while these numbers are small in comparison to both the need and the U.S. fair share, they are large relative to previous contributions. To effectively deliver finance on even this scale, the U.S. must put in place domestic fiscal measures to ensure it is generated equitably, engage with developing country partners who are best suited for identifying well-conceived activities, and deploy the resources to partners prepared to effectively use them.

Importantly, the U.S. must then rapidly ramp up its commitments toward its actual fair share, working expeditiously and cooperatively with the global community to create the conditions necessary to do so. This includes refining assessments of the actual mitigation, adaptation, and Loss and Damage finance needs, and working specifically with stakeholders from recipient countries to identify responses consistent with their development priorities and the scale of the challenge posed by a transformation to resilient and climate-friendly societies. The U.S. must also work with other wealthy countries to take further steps to provide adequate amounts of public climate finance, putting mechanisms in place that will help generate the necessary resources, redirecting finance that is currently prolonging the unviable fossil-fuel-based economy, and helping establish the institutions that can rapidly, effectively, and equitably deploy the resources.