



the weekly anthropocene



dispatches from the wild, weird world of humanity and its biosphere

By Sam Matey, February 3, 2020

United States. January 27,

2021 was the single most important day (so far) for American efforts to fight climate change. President Joe Biden took the most far-reaching climate actions ever from a US President, signing massive executive orders with a laundry list of changes. Each one of the many, many new actions Biden has mandated would be huge news on their own, but all together, they add up to a radical paradigm shift towards an effective, government-wide plan to fight the climate crisis.



America's 17 intelligence agencies were directed to produce a National Intelligence Estimate of the security threat posed by climate change, the same sort of document used to assess the threat from issues like global terrorism. The order reaffirmed that Biden plans to host a Leaders' Climate Summit on April 22nd. President Biden also planned on leveraging the federal government's buying power, directing federal agencies to purchase carbon-free electricity and zero-emission vehicles made in America. The order formally established the White House Office of Domestic Climate Policy (led by previously-announced National Climate Advisor Gina McCarthy) and created the National Climate Policy Task Force, a whole-of-government working group spanning 21 agencies. Amazingly, Biden also paused new oil and gas drilling leases on federal lands directed the Office of Management and Budget to try to find ways to eliminate fossil fuel subsidies, and directed the Interior Department to consider adjusting drillers' lease rates. This won't stop the multitude of fossil fuel leases already sold, but it will prevent more chunks of American heritage from being hired out to fossil fuel companies. It's also a powerful symbolic statement, and may lead to more actions to limit drilling on public lands down the line. (See tinyurl.com/FederalLeasePause). President Biden's executive orders also focused on environmental justice, creating new offices on environmental justice across departments, an Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization to help bring new jobs to former fossil fuel communities and setting a



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“Justice40” target to bring 40% of the benefits of new federal clean energy and infrastructure investment to communities that have been disadvantaged by pollution and other factors in the past.

The orders also set a new target of conserving 30% of America’s land and 30% of America’s oceans by 2030 (we’re currently at 12% of land and 26% of oceans) and launched a stakeholder engagement process to implement this, meaning we’re likely to see a lot of new protected areas designated under the Biden Administration! Biden also directed the Secretary of Agriculture to research ways to incentivize climate-smart and carbon-sequestering farming methods. And fascinatingly, the orders also plan for using existing appropriations money to create a Civilian Climate Corps, a 21st century version of FDR’s wildly successful Civilian Conservation Corps. This CCC for the Anthropocene will “aim to conserve and restore public lands and waters, bolster community resilience, increase reforestation, increase carbon sequestration in the agricultural sector, protect biodiversity, improve access to recreation, and address the changing climate.” Furthermore, one executive order established the President’s Council of Advisors on Science and Technology, to inform Biden’s science policies, and a memorandum on scientific integrity directed all government agencies to designate a Chief Science Officer and work to ensure their decisions were made on the best available science and data. Finally, beyond the executive orders, the White House made clear it would work to limit funding of fossil fuels from major financial bodies like the Export-Import Bank, World Bank, and IMF, a move that will likely send a strong signal to world markets to get on board with the renewables revolution. For a summary of the climate executive orders from the White House itself, check out tinyurl.com/BidenClimateOrders. For the text of the main omnibus executive order, see tinyurl.com/BidenOmnibusClimateEO. For analysis, check out <https://tinyurl.com/LandmarkClimateDay> and tinyurl.com/BidenClimateDay. For a great overview of the climate fight now, see tinyurl.com/1tc4hxpg.

Beyond the impact of the policies alone, such a strong position on climate action from the President of the United States is likely to inspire (and incentivize) more entities to move forward, from companies to other countries. In fact, we’re already seeing this: on January 28th, one day after Biden’s climate executive orders, General Motors announced a breathtaking new climate plan. The automaker’s official goal is now to stop selling gasoline and diesel-powered cars and light trucks by 2035, and reach carbon neutrality by 2040! This is a really big deal, that will reduce air pollution and greenhouse gas emissions while pushing the rest of the American auto industry to follow suit. (For more, see tinyurl.com/GMClimatePledge and tinyurl.com/GMBigDeal).

In sum, at long last, the United States of America is facing this century’s greatest threat with the focus and dedication required. After the nihilistic nightmare of the Trump Administration, this is an incredibly hopeful and deeply encouraging development, perhaps even setting the stage for a curtailment of the climate crisis in our lifetimes. Truly glorious news.



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Sharks. A new study in *Nature* found that populations of 18 shark and ray species have declined by 70% since 1970, an alarm bell for these ecologically critical oceangoing predators. The world population of the oceanic whitetip shark declined by an astonishing 98% in the last 60 years, and the species is now critically endangered. Scalloped and great hammerhead sharks (*Sphyrna mokarran*, pictured) are also now critically



endangered. The study found that the primary threat was overfishing, mostly in the tropics, and that an individual shark is 18 times more likely to get caught now than in 1970. To preserve these ancient creatures from extinction, researchers called for more regulations on shark fishing, which is currently a near-free for all, and the creation of more protected areas to allow critically endangered species to recover. For more, see tinyurl.com/SharksAtRisk

Orcas. The Salish Sea, in British Columbia and Washington State, is home to two different types of orcas (*Orcinus orca*, aka killer whales, pictured). Three pods of “resident” orcas stay in the area regularly, and their diet is over 80% Chinook salmon, which they eat in large family groups. “Transient” orcas visit the sea irregularly, and primarily hunt marine mammals like seals, sea lions and porpoises in smaller, focused hunting groups. Fascinatingly, they even seem to



have separate languages, using completely distinct patterns and sounds to communicate, making them essentially different orca “cultures” or “nations.” However, their fates are diverging: Chinook salmon runs have dwindled greatly due to dams on the rivers and other factors, while marine mammals were granted legal protections in the 1970s and their populations have boomed. As a result, the salmon-eating resident orca population shrunk from 97 in 1996 to just 74 now, while the transient population grew rapidly for decades and reached 349 individuals in 2018. This is fascinating example of how even within species, some behavior patterns lead to expansion and some lead to decline in the Anthropocene. For more, see tinyurl.com/SalishSeaOrcas.