

FRIDAY, DECEMBER 3, 2021 • A SPECIAL SECTION

# The New York Times

This is the first series from Headway, a new initiative from The New York Times exploring the world's challenges through the lens of progress.



## What Does It Mean to Save A Neighborhood?

New York City's plans for East River Park, a humble sanctuary, call for it to be demolished and rebuilt.

DANIEL ARNOLD FOR THE NEW YORK TIMES

Nine years after Hurricane Sandy, residents of Lower Manhattan are still vulnerable to rising seas. The fight over a plan to protect them reveals why progress on our most critical challenges is so hard. By Michael Kimmelman.

## Dear People of 2021

For the first series from the Headway initiative, we followed up on forecasts from decades past to ask: **What can we learn from hindsight?**

By MATTHEW THOMPSON

Our forebears had a lot of ideas about where we'd be by now. Go back a few years, and you'll find no end of prophecies about the world we'd inhabit today — tech fantasies of roads filled with self-driving machines, dire visions of critical water sources gone dry, projections of cities and markets growing and shrinking. In *The New York Times* of even a decade ago, the year 2020 was considered a rich canvas for visions of the future, “far enough in the distance to dream, yet seemingly within arm's reach.”

Imagining futures is how we often wrestle with change in the present. Yet our ability to envision — and therefore shape — the future is constantly pressed in by the world we inhabit today.

Few people even a decade ago could have imagined how we began 2021: under lockdowns against a deadly virus, with a U.S. president on trial for impeachment, about to undergo a transition of power tainted for the first time in more than a century by violence. Yet such explosive change has not moved us from a path to warming the planet beyond what would be livable for humankind. Until a year ago, the fastest vaccine ever developed had taken four years to reach the world; now we're wondering how much of the world the fastest vaccine ever developed will reach.

We can't slow down time, but we can widen the span of our attention. I'm writing to you as the editor of Headway, a new team at *The Times* exploring the world's challenges through the lens of progress.

And I could use your help answering a hairy, urgent question: **What on earth is progress?**

The Headway team and I would like you to help us define progress: how we measure it, and how we make it. Our first exploration — the series you're reading now — is called Hindsight. We've looked back on goals, predictions and promises expected to be realized by now, reporting on what happened and what we can learn from the outcome.

In the years to come, we'll bring you a range of stories about the world we are building. We'll go to a place grappling with the recent discovery of a precious natural resource. We'll look at what it would mean to end homelessness in the U.S. city that's come closest to doing it. We'll explore the rebuilding of industrial sectors around the idea that waste should be costly and rare. Above all, we'll try to understand what the course of time might have in store for us, and where we might have the greatest collective power to shape that path.

Our exploration of hindsight begins in East River Park in Manhattan. Michael Kimmelman, Headway's founder and editor-at-large and the chief architecture critic of *The Times*, has followed the saga of this park for years, and spun from it a parable about one conundrum at the heart of progress: **Why are our most urgent challenges precisely the ones that seem to be most stuck?**

The metaphor for progress I keep returning to is that icon of human invention: The wheel. What it doesn't crush, it carries. Even as it's moving forward, parts of it move backward. Actions meet equal and opposite reactions, and the friction of that clash spins us ahead.

We've imagined Headway as a sort of correspondence with you and everyone who joins us in the years to come. Alongside our coverage, we'll cultivate a Public Square — a series of dialogues, puzzles and other explorations that span a range of platforms. In that spirit of conversation, I'll share some of our gleanings from Hindsight, and invite you to share your own, at [DearHeadway@nytimes.com](mailto:DearHeadway@nytimes.com).

**There are multiple futures.** Futurists often group visions of the future into one of four types: collapse, growth, discipline and transformation. Often all four are happening at once.

**Our methods of measuring progress resist precision.**

Whether it's the threshold of extreme poverty or the amount of carbon we're ejecting into the atmosphere, the indicators we use to mark progress tend to blur on close inspection. But even flawed measures of progress can be catalysts for action.

**Defining progress is how we make it.** It's easy to express an abstract goal, such as ending deforestation, but without clear definitions of what that entails, genuine change can be elusive. The stories in this series turn on definitions. We can say that a major emitter has met a climate pledge, that we've reduced extreme poverty or that we've spread safe drinking water to more of the world, but what do these achievements mean?

Only the people of years to come will be able to see where our actions have led. But only we can say where we intend them to. So help us define what it means to make progress.

And may we make it.

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Nancy Ortiz has been a voice for tenants at Vladeck Houses, the Lower East Side's oldest public housing project. Generations of families like hers have used East River Park as their backyard.

# The Parable of East River Park

By MICHAEL KIMMELMAN  
Photographs by DANIEL ARNOLD

The day after the storm swallowed her neighborhood, Nancy Ortiz woke before dawn to buy ice. It was 2012, and Hurricane Sandy had reclaimed Lower Manhattan for Mother Nature. Making landfall near Atlantic City, it swept north, ravaging the New Jersey coast, destroying thousands of homes and inundating New York City with waves as high as 14 feet.

Sandy shuttered Wall Street, rattling global markets, and for a moment the storm restored Manhattan's early 17th-century coastline. A brackish murk of waist-high water submerged all the landfill that humans had dredged, salvaged and shipped to widen the island, and that now supported the Franklin D. Roosevelt Drive. It also swamped a large cluster of public housing developments and a beloved but bedraggled ribbon of greenery built by Robert Moses during the 1930s called East River Park.

Across the country, daunting challenges demand robust and swift responses. The effort to build climate resiliency in Lower Manhattan helps explain why that is so hard.

In the dark, Ms. Ortiz tiptoed through a shambles of overturned cars and shattered glass to her Acura TSX. The storm had knocked out electricity to 250,000 people in the area, including those in Vladeck Houses, the oldest public housing project on the Lower East Side. As president of the Vladeck tenants' association, Ms. Ortiz knew there were many diabetic residents who would need to keep their insulin cold. She figured help wasn't likely to come quickly; for public housing residents, it rarely did. So she got into her car and headed north, some 15 miles, all the way into the Bronx, before finding a store selling 10-pound bags of ice. Into the night she navigated Vladeck's dark stairwells, knocking on doors.

Though Ms. Ortiz's neighborhood was one of the worst hit by Sandy, the storm caused tens of billions of dollars in damage all across the region and killed more than 100 people. It was a sign of things to come and begged for a federal response. After surveying the wreckage, President Barack

Obama turned to Shaun Donovan, his secretary of housing and urban development, who came up with a novel federal competition called Rebuild by Design. Teams of architects and engineers were invited to conceive creative flood-protection proposals in collaboration with members of the affected communities.

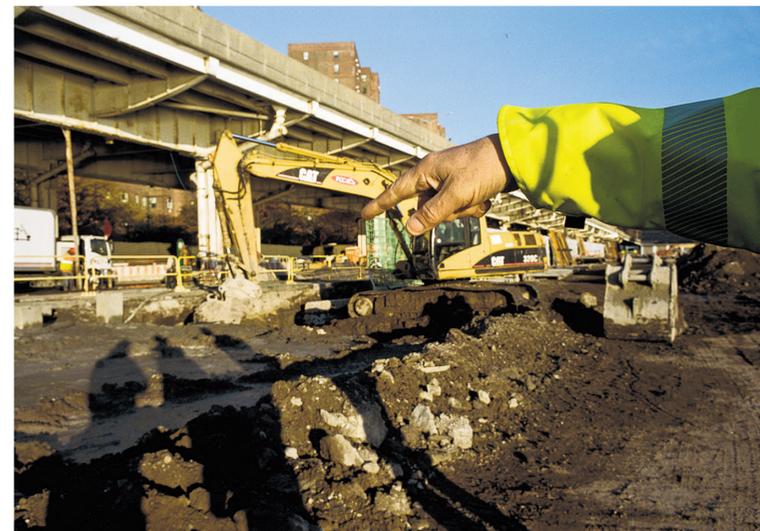
Several dozen proposals surfaced, and in 2014, seven winners were selected. By far the largest grant went to a segment of a wider Lower Manhattan resiliency plan called the BIG U. It aimed to protect residents in the public housing developments, including Vladeck. Officials named the segment the East Side Coastal Resiliency project.

Borrowing ideas from the waterlogged Dutch, the plan imagined a redesigned East River Park that could withstand flooding from future Sandy-level events. A grassy, reinforced hill, or berm, on the western edge of the park abutting the F.D.R. Drive would be built to act as a barrier, holding back floodwaters and protect-

ing the housing developments. The plan went through years of public workshops, town hall meetings and open houses attended by more than 1,000 community members. Its estimated price tag was \$760 million. New York City taxpayers would pay for what the federal government's grant didn't cover.

I had followed Rebuild from the start. As an architecture critic focused on public space, housing and the environment, I saw the effort as a genuine breakthrough. The political stars looked as if they might align — federal, state and city governments, as well as neighborhood groups, all pulling in unison to tackle climate change on a meaningful scale in ways that prioritized design and the needs of vulnerable populations. Rebuild, in spirit at least, harked back to the creative, can-do days of the New Deal and the space program. I visited sites with Mr. Donovan, sat in on meetings and invited the plan's architects to graduate classes

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Clockwise from left, Vladeck Houses escaped the worst flooding during Sandy but could be vulnerable to other big storms; work has begun on riverfront fortifications; protesters have objected to the plans for East River Park, which is to be covered with eight to 10 feet of landfill.



FROM PRECEDING PAGE

I taught on climate change and global cities at Columbia University. The architects told the students about the slow, incremental process of earning neighborhood support. They came with glossy renderings of photoshopped joggers and parents pushing strollers in the reimaged park where floods came and went.

But then, in 2018, under Mayor Bill de Blasio, the mood changed. Behind closed doors, city agencies did a “constructability review” — that is, they calculated the proposal’s costs and timeline — and concluded that it was simply not feasible. The city’s parks department said it didn’t have the money, workers or expertise to maintain infrastructure in a park built to flood. The department of transportation, prioritizing cars and trucks, decided the berm’s construction would be too disruptive to traffic on the F.D.R. Drive. Con Edison said that the proposal would interfere with its underground power lines and that engineering the necessary tunnels to encase the lines could add years, risks and untold costs to the project.

City Hall unveiled what it called an alternative design. It would cost New Yorkers \$1.45 billion. It required razing not a portion of the park, like the earlier plan, but the entire park, and then covering nearly all its 50-odd acres with eight to 10 feet of landfill while keeping Con Ed’s power lines accessible. A new East River Park much like the one envisioned by the architects and community groups would be built on top of the landfill, with new areas for passive recreation. Gone was the idea of periodic, acceptable flooding. The new raised park, braced by a 1.2-mile flood wall and millions of tons of layered earth barged in by water, would act as a levee to hold back the surging sea.

When the mayor announced the plan, I started to hear new voices. A group led by professors, artists and other Lower Manhattan residents, a number of whom didn’t

**Neighbors felt betrayed, but they also wanted something, anything, built as soon as possible, to protect them from the flooding of future Sandys.**

live next to the park but used it, started organizing protests. They argued that the city’s new plan did not go far enough to address the effects of climate change and that demolishing the park with the shade of a thousand mature trees would leave the neighborhood without precious green space for years. They contested the views of the city’s experts who said the park couldn’t be maintained as a gigantic sponge. I saw pictures of them chaining themselves to trees and noticed they enlisted a lawyer who had opposed other city initiatives, including rapid bus lanes on 14th Street.

Ms. Ortiz and some of her neighbors in the subsidized housing projects were no less appalled by the mayor’s sudden change in the plans. “We felt betrayed, like we didn’t exist,” was how Ms. Ortiz put it to me. But they also wanted something, anything, built as soon as possible, to protect them from the flooding of future Sandys. They started to accept the merits of the city’s plan. As they did so, they began to see its opponents as interlopers — more than a few of them wealthier, white people living in apartments that were not on the front lines. A project devised to build community trust and overcome political gridlock seemed to be fracturing the community instead.

Now, nearly a decade after Sandy, the Lower East Side is still vulnerable. Across the country, there are similar daunting challenges that demand big, robust and swift responses. There’s climate change, of course, which brings extreme weather and rising seas, but also a dearth of affordable housing, an electric grid in disrepair, a lack of broadband access, failing public transit systems — the list goes on and on. The recent passage of a \$1.2 trillion federal infrastructure bill is a big step toward tackling some of those problems, but as East River Park shows, even when money is at hand, our convoluted systems often make it difficult or impossible to find consensus and

work at the speed and scale required. A process of participatory planning, rightly evolved to represent interests other than government technocrats and wealthy developers, has also created, in some places, a culture of Nimby-ism that thwarts even modest proposals. Our conversations seem increasingly cramped, mean and small. Is our society just too frayed to come together around basic material needs?

In the debate over what is officially called John V. Lindsay East River Park, I sensed there might be some useful lessons about how we got here and how we might try to think differently. The park saga is not a conflict between bad versus good actors, but a confluence of different interests, different areas of expertise, different notions of community. It is a parable of progress.

Construction on enormous flood walls north of the park has begun. The city had planned to start reconstruction in the park itself by late November, until a judge granted opponents a temporary stay. The stay has just been lifted, and the park construction is supposed to take five years.

If completed, the new park certainly won’t be the best thing that we could achieve, far from it, and it may need to be rebuilt to cope with even more extreme weather in the future; but nor is it a certain calamity. It’s a hefty public investment to benefit thousands of underserved New Yorkers that should provide some protection from flooding for a time — an incremental step, in other words. Incrementalism is how we think about progress today.

The question is: Are there other ways to think about it?

**Whose Authority Matters?**

In 1939, George Gallup’s American Institute of Public Opinion conducted a national poll. With the country coming out of the Depression, pollsters asked Americans to name both the Roosevelt administration’s greatest accomplishment and lowest

point. The New Deal had by then established Social Security and federal bank deposit insurance, but what became known as the Work Projects Administration was arguably its most ambitious program. A vast menu of public works, coordinated with local and state authorities, the W.P.A. employed millions of Americans. Across the nation, it produced new schools, hospitals, sewers and hydroelectric power plants, as well as murals, sculptures, libraries, La Guardia Airport in Queens and some 650,000 miles of roads and 8,000 parks. It transformed America.

As the historian Jason Scott Smith tells it, in the Gallup survey the W.P.A. was ranked as both the best and worst thing the administration had done. Change, big change especially, always profits some and troubles others.

Among the roads funded by the W.P.A. was a section of the F.D.R. Drive, then called East River Drive. To city leaders nearly a century ago, New York’s economic future hinged on suburban commuters and automobiles. Car dependence now seems spectacularly wrongheaded to urban planners, ecologists and transit advocates, with all we know about sprawl, carbon emissions and the way highways divided and segregated city neighborhoods. But what is regarded as progress at one moment often comes to be seen as the problem later. As Eric Klinenberg, a sociology professor at New York University, puts it, “Science is based on the premise that we will inevitably be wrong and find better ways to make sense of things.”

Social reformers in the 1930s seized on the highway’s construction to lobby for the creation of new forms of public housing next to the new East River Drive. Vladeck Houses, the first of these developments, opened in 1940: a complex of 20 six-story brick apartment blocks featuring modern conveniences like “self-operating elevators,” as one news report noted. In contrast to the cramped, airless tenements that



Around the time Vladeck Houses opened in 1940, more than 19,000 New Yorkers applied for its 1,771 subsidized apartments. In 2012, Sandy’s floodwaters briefly restored Manhattan’s early 17th-century coastline.



IVAN BAAN/REPORTAGE BY GETTY IMAGES

made the turn-of-the-century Lower East Side notorious for overcrowding and outbreaks of cholera and other diseases, Vladeck’s boxy buildings in wide open spaces represented progressive ideals about humane living and public health. More than 19,000 New Yorkers applied for 1,771 subsidized apartments before officials had to put a halt to applications.

Robert Moses, then New York’s parks commissioner, saw another opportunity in the highway’s construction. The East River, down to the Battery, had once formed the heart of one of the mightiest and most prosperous ports in the world. By the 1930s, however, maritime traffic had shifted across town, to the deeper channels of the Hudson River. In 1937, Moses persuaded city officials to add acres of landfill along the East River waterfront, expanding Manhattan’s shoreline and creating a slender, gracious park with wading pools, baseball fields, shuffleboard courts, an open-air dance floor and an amphitheater, where among other things, Shakespeare in the Park would make its debut. Shaded by London planes and pin oak trees, the park was sandwiched between the new highway and a riverside promenade. One of Moses’s less-heralded triumphs, East River Park opened in 1939.

Three years later, Nancy Ortiz’s recently widowed grandmother left Puerto Rico and settled into a tenement on Delancey Street in the heart of the Lower East Side with her seven children. The youngest, Nancy’s future father, was 12-year-old Diego, who was called Willie, though no one can recall why. East River Park, a couple of blocks away, became Willie’s backyard. Years later, after returning from the Korean War, Willie moved a little closer to the park, into a development called Lavanburg Homes. Nancy grew up there. As a little girl, Ms. Ortiz recalls, she would accompany her father to the park on summer weekends. Willie and other men from the neighborhood would play softball in

guayaberas and dress shoes while she played tag with her friends. Kids who skipped school would hide from truant officers behind the amphitheater.

For Moses, the 1940s and ‘50s were years of peak authority as the city’s planning czar. Among other things, he oversaw the addition of more public housing developments along the East River. But the 1960s brought new thinking. Rachel Carson, the marine biologist and author, challenged the authority of pesticide-making chemical companies and inspired the environmental movement. Jane Jacobs took on the urban planning establishment. The highways Moses built had demolished and physically split neighborhoods, displacing or isolating thousands of Black and brown residents and fouling the air with car exhaust. Jacobs argued that ordinary residents who saw the city from the sidewalk level — not planners like Moses looking down on maps like demigods, or developers, focused on profits — knew best what ought to be saved or built in their own neighborhoods. Community members were the true experts. Moses’s power waned.

By the early 1970s, when Ms. Ortiz and her parents moved from Lavanburg into one of the newer Moses developments on Delancey Street, an idea called Westway started to take shape across town. The West Side piers, which had replaced those on the East River, had by then become obsolete, too, and Westway was a plan to reimagine that waterfront. A new interstate would be tunneled below the Hudson River, removing cars and trucks from city streets. Disused warehouses and docks would make way for apartments and commercial development. As with East River Park, acres of landfill would be added to create a vast green esplanade. Over the next decade and a half, Westway secured endorsements from New York’s governors and mayors. And President Ronald Reagan’s administration agreed to pay to

move the highway.

But it wasn’t to be. The culture had shifted. As more Black and Hispanic tenants moved into public housing, federal and local authorities lost interest in its upkeep. Developments like Vladeck, once advertised as bucolic and equitable alternatives to dense city living, came to represent urban decline. With Westway, newly energized urban activists seized on the proposal as an outmoded emblem of Moses-style, top-down arrogance (though it wasn’t Moses’ idea). They said it prioritized drivers, not public transit users; developers, not blue-collar New Yorkers. Environmentalists focused on its potential to disrupt the mating patterns of striped bass in the Hudson River. A coalition of wildlife advocates, architectural preservationists and subway riders, capitalizing on new, Nixon-era ecological regulations, challenged government experts in court. And they won.

Whether, in retrospect, Westway’s defeat was a victory for the city or not — in effect, environmentalists derailed what would have been a greenway roughly twice the size of East River Park — it was definitely a triumph for grass-roots organizers, signaling a new era in participatory democracy. The Powers That Be had begun to yield, however reluctantly and performatively, to People Power.

**Brought In, Left Out**

When Rebuild for Design endorsed the East Side Coastal Resiliency project, the big idea was that it would be radically inclusive. The floodproofing of East River Park would do more than protect the neighborhood from storm surges, its organizers said. It would marry elite architecture and urban planning with meaningful public engagement. People power would join up with expertise.

In 2013, Lower East Siders began to CONTINUED ON FOLLOWING PAGE



PHOTOGRAPHS BY DANIEL ARNOLD FOR THE NEW YORK TIMES

Scenes from East River Park. The existing park, a shambolic retreat and slice of midcentury New York, has had improvements, like an esplanade, that will now be undone. The flower gardens, W.P.A.-era buildings and playing fields will be demolished.



## FROM PRECEDING PAGE

meet with representatives from One Architecture & Urbanism and the Bjarke Ingels Group, better known as BIG, the high-profile Danish architecture firm. This group had come up with the multipart plan, called the BIG U, for protecting all of Lower Manhattan. Jeremy Siegel, one of BIG's architects, remembers lugging models and maps to community centers and public schools to show residents what the park could look like. He enjoyed the back and forth, he told me, and described the rounds of meetings as "a slow, iterative process." Matthijs Bouw, the Dutch founder of One Architecture and a co-leader of the BIG Team, recalls that community members at first expressed fear about displacement, along with a good dose of distrust. For him, a key moment was when a local organizer who had been skeptical of the plan stood up and said that "this was the first time residents were treated like partners."

Ms. Ortiz, who became a co-chair of a community board task force, recalls senators lobbying for benches and tables where they could play cards and families petitioning for outdoor movie screenings. "People from the neighborhood wanted to see themselves in the process," she told me. "Over time, we felt we were being heard." That is the goal of participatory decision-making, after all. To borrow a phrase from Malcolm Araoz, a graduate student at New York University who is writing his dissertation about the park, public trust requires participants to "continuously recognize their inputs reflected in the evolution" of a project.

So when Mayor de Blasio's administration, which had not raised insuperable objections during nearly five years of community consultation, suddenly swapped the plan for what officials decided was a more technically sound one, the switch did more than infuriate residents. It caused a legitimacy crisis. Residents felt bamboozled. The whole consulting process

**'Why should we believe anything the city says if it keeps hiding the truth?' says Pat Arnow, who objects to the plan to add landfill on top of the park.**

seemed like a sham. And if that were the case, opponents asked, why should anyone believe city officials who said the engineering, construction and maintenance costs made the earlier plan impossible? Expertise itself was now up for debate.

"We understand the frustration," said Jamie Torres-Springer, who was first deputy commissioner of the city's Department of Design and Construction when the new plan was announced. In retrospect, he told me, it would have been better to explain more clearly the city's perspective to residents in community meetings before announcing it as a done deal. But "we were facing a deadline to spend the federal funds and wanted to get the project built as quickly as possible to get the flood protection in place," he added. "We really didn't consider the new design to be a radical change from the original one."

Except, of course, that a central goal of the whole process, to build trust, had been undermined.

I met recently with a half-dozen members of East River Park Action, the most vociferous of the opposition groups that arose in response to the new plan. Months earlier, the group's alerts started dropping in my inbox, announcing a court hearing or inviting people to join a protest march. We gathered around a table at Cafe Mogador, an old Middle Eastern standby in the East Village. The group included Pat Arnow, a photographer; Billie Cohen, a landscape designer; and Eileen Myles, a poet and the author of "Chelsea Girls." Their distrust of the mayor's plan had been exacerbated by the city's refusal to turn over documents about its constructability study. "We had to do a Freedom of Information Law request and the city finally released a heavily redacted version of the study," Ms. Arnow said. "Why should we believe anything the city says if it keeps hiding the truth?"

Ms. Arnow's group supported the original berm idea that had been developed with the community, and imagined the

East River waterfront gradually transforming into wetlands. As sea levels rise, Ms. Arnow foresaw East River Park evolving into eco-friendly marshes managed by the parks department.

The group suggested that a truly enlightened response to climate change would be to build a green roof over the F.D.R. Drive — an idea the BIG Team had floated at the very start, before city officials asked that it be withdrawn because, as Amy Chester, the managing director of Rebuild recalls, City Hall didn't want to "overpromise." A roof, according to the East River Park Action group, would create a protective barrier for the housing developments while also muffling traffic noise and providing additional parkland. In essence, they said, bury the highway, not the park.

"It's not a comprehensive plan," is how Ms. Cohen summed up criticism of the city's proposal. It made no sense, the group argued, to cut down mature trees that provide shade, hold carbon and act as a stop-over for migratory birds, and replace them with saplings. Instead, they urged, focus on increasing the city's sewer capacity, upgrading public housing campuses and reducing car emissions.

I found it hard to argue in principle with their desires. I also love the existing park, a shambolic retreat and slice of midcentury New York, which had some recent, costly upgrades, like a riverfront esplanade, that will now need to be undone. It's painful to imagine demolishing all those flower gardens, W.P.A.-era buildings and playing fields. New York's drainage and sewer systems are indeed rickety and ancient, a fact driven home in September when a downpour from Tropical Storm Ida flooded city streets and killed dozens of people in the region. But constructing thousands of miles of new sewers — not to mention rerouting highways and other herculean, long-term measures — was never Rebuild's remit. And at a certain point, mak-

ing such lofty goals a prerequisite for urgently needed flood protection only ensures that nothing will get done.

After meeting with Ms. Arnow and the other East River Park Action representatives, I visited Ms. Ortiz. She has become a frequently cited supporter of the city's plan. In January, after stepping down as Vladeck's tenant president, she started working as a special assistant at the New York City Housing Authority, or NYCHA. We arranged a post-work late lunch at El Castillo de Jagua 2, a Dominican restaurant near Vladeck Houses, where she kissed the waitress and waved to customers. Frank Avila-Goldman, a leader of the residents' committee at Gouverneur Gardens, a development next to Vladeck, joined us. Unlike Vladeck, which sits on higher ground, Gouverneur Gardens was badly flooded during Sandy.

When she first heard on the TV news that the city had discarded the original plan, Ms. Ortiz said, she was every bit as angry as Ms. Arnow and the other East River Park Action members. The city scrambled to make up for its botched rollout by holding meetings with NYCHA. Carlina Rivera, a City Council member representing the district, helped organize some of these meetings and noticed a gradual thaw among public housing residents. "They were upset by how the new plan had been announced," Ms. Rivera said, "but at the end of the day they wanted protection and wanted to know there would be a park for their grandchildren."

The obstacle to that aim, some of those NYCHA tenants came to believe, were now the members of East River Park Action and other such groups. Over the last several years, among the hundreds of thousands of residents in the area, a few thousand people signed petitions against the city's plan. What percentage of the roughly 30,000 public housing residents objected to it isn't clear. But people like Ms. Ortiz and Mr. Avila-Goldman began to zero in on how



RENDERINGS BY BJARKE INGELS GROUP

How architects envision changes to East River Park. At the northern end, near a Con Edison plant, gates will be built across the Franklin D. Roosevelt Drive that will close during floods to prevent water from flowing into housing developments.

many of the most outspoken opponents seemed to them to be white people not living in subsidized housing.

"For tenants in my building and the people I know in NYCHA who were slammed by Sandy, we need flood protection yesterday," Mr. Avila-Goldman told me. "The opponents who came late to the party talk about saving trees and squirrels. I have been to so many meetings where I felt talked down to, as if only white people are the ones who care about the environment. If I had a magic wand, I would also deck over the F.D.R. Drive because when I open my windows I find soot on my walls from all the traffic. I'm on the front line. But covering the highway is a pipe dream these people are using to derail a plan that is about saving our lives and our park."

As Ms. Ortiz put it: "The new plan didn't blow up the community. It revealed that there isn't a community. People like to throw around that word."

### Inclusion vs. Urgency

It's not coincidental that the rise of community activism and the use of the word "expertise" occurred around the same time. "Expertise started to be commonly used only during the 1960s and '70s precisely because there were suddenly conflicts over who should call themselves experts," says Gil Eyal, author of "The Crisis of Expertise." "Nuclear energy was a big issue at the time. Nuclear physicists were the experts on nuclear energy. But opponents of nuclear power began to argue that nuclear physicists weren't expert when it came to public health or the consequences of a potential meltdown, or when it came to environmental issues and environmental racism."

Government organizations started to include experts of different stripes to contend with big problems. "Of course the more expertise you have, the more entangled you probably are, meaning your neu-

trality is questionable," Mr. Eyal said. "So the answer to that problem was to add yet more stakeholders — advocates, members of the public — which made consensus even harder to achieve."

In essence, Mr. Eyal argues, a participatory system designed to build public trust causes people to lose faith in the system.

The remedy, he says, is time. Researchers have a term, "inclusion friction," he told me, for how bringing more voices into a process inevitably slows it down. Conflicts arise among different stakeholders, and public discussions require explanations and careful conversations. "To do inclusion right you have to take your time," Mr. Eyal says. "You can't present people with a fait accompli because they'll understand the inclusion to have been a sham."

The problem is that some crises don't afford the luxury of time. A deadly virus racing around the world, for example. Operation Warp Speed, the federal Covid-19 vaccine development program, saved countless lives, but it also "moved faster than public consensus," as Mr. Eyal points out, exacerbating skepticism. Some environmentalists argue that climate change is a crisis simply too big and fast moving for the snail's pace of participatory democracy.

The Dutch have resolved this conflict on the side of expertise. With fully a third of their country below sea level, the Dutch have lived in a state of existential crisis for as long as they have occupied what is essentially the gutter of Europe, where major rivers drain into the sea. When he was tasked by President Obama with Sandy recovery, Mr. Donovan, the housing and urban development secretary, hopped a plane for the Netherlands and got a crash course in Dutch water management. During the 12th century, medieval Netherlands established water boards: regional councils in charge of overseeing canals, rivers and everything else water-related. Today, Dutch water boards, in tandem with ecologists and engineers, still help deter-

mine national flood protection policies, including where people can or can't live, and what needs to be built, or unbuilt, to safeguard against flooding. Elected politicians come and go; water boards are there to listen to science and take the long view.

This doesn't mean Dutch experts always get things right. Scientific understanding evolves. In 1953, a huge winter storm in the North Sea breached dikes and flooded much of western Netherlands. Nearly 2,000 people were killed. The Dutch still call it The Disaster. In response, officials undertook the Delta Works, a massive nationwide system of levees, sluices, dikes, dams and sea gates.

But even while the Delta Works were under construction, ecologists began to realize that some of those barriers were killing flora and fauna and disrupting tidal flows. So, simultaneously, Dutch water managers attempted a new approach. Rather than just try to subjugate nature, they would also cede targeted areas to the rivers and sea. At huge cost, the Dutch deconstructed some major dams. They built water parks that doubled as reservoirs and designed plazas with sunken gardens and basketball courts that collected runoff when nearby canals overflowed. They ordered farmers to move from properties that, based on engineers' calculations, would be needed as retention pools to prevent bigger cities downstream from flooding. Farmers weren't happy.

But the lesson of the Delta Works was that progress is not an endpoint. It's a process.

In the Netherlands, citizens give up a measure of autonomy in return for safety. Prevention is the priority there. In the United States, a different ethos reigns. Private-property owners whose homes flood or burn down receive federal emergency-relief funds to rebuild, and only recently have insurance companies begun to refuse — or to charge exponentially higher premi-

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Construction near the Vladeck Houses. Top, a private moment along the East River. However pressing the current plans for the park, upgrades will likely be necessary in a few decades.

FROM PRECEDING PAGE

ums — to insure some especially flood-prone and fire-prone homes. A nation steeped in individual liberty and Manifest Destiny is not accustomed to thinking about prevention or retreating from places too unsafe to occupy or too costly to save.

“This is New York, not New Amsterdam,” as Mr. Eyal puts it. You can’t impose a method here, he says, that is the result of “collective learning handed down in big and small ways, over centuries. What we can learn from the Dutch,” he suggests, “is that some of our truisms are not as stable as we think — participation and transparency are not an absolute good — and then we have to figure out our own way.”

In the meantime, we remain mired in processes that can take much too long to resolve urgent challenges, with neighbors battling neighbors, experts battling experts and no one with a mandate to take the long view. Van C. Tran, a sociologist at the City University of New York’s Graduate Center who specializes in community relations, has also been following the East River Park story. Mr. Tran distinguishes between technical planning — the architecture, engineering, cost calculations — and social planning. Technical planning is the realm of experts. “Social planning — in this case how the park should be used — is where the community should have the most input,” he says. But in reality, there are many communities. He believes much of the opposition “comes from more-educated, organized factions in the neighborhood, which raises the larger question of voice and equality — whose voice is most essential and should be heard in the community process,” Mr. Tran says. “My first priority always goes to the voiceless.”

Mr. Araos, the New York University graduate student, told me he believes finding common ground has to start long before a crisis arises. “The solution can’t just be more meetings or more ‘community voice’ — this doesn’t work by itself,” he said. The answer involves strengthening investments in public institutions so that neighborhoods are better prepared to deal collectively with existential threats like climate change or a pandemic. “At the time of planning a huge public work like in East River Park,” he continued, “the relationships we build through institutions like local schools or libraries can be the building blocks of civic trust, cohesion and respect.”

### What Counts as Progress?

Back in September, I met Mr. Bouw, the Dutch architect who helped design the BIG U, at the 34th Street ferry landing on the East River for a walk along the riverfront, so he could explain the mayor’s plan. We passed an elevated section of the F.D.R. Drive, not far from Bellevue Hospital, where floodgates as thick as bank-vault doors will be installed. Across a decrepit pedestrian bridge over the highway, we reached the park, passing an old playground with concrete chess tables where Ms. Ortiz told me she used to take her children to ride the seesaws.

The new East River Park is expected to take at least five years to build and it is conceived to keep Lower East Siders dry during Sandy-like storms until 2050. By then, continued sea level rise could mean an upgrade will already be required. I asked Carrie Grassi, from the Mayor’s Office of Climate Resiliency, whether a neighborhood park, whose renovation will cost taxpayers more than \$1 billion, should offer residents longer protection than that. Ms. Grassi said the new park will be engineered to support an additional two feet of landfill, should more extreme weather make that necessary. “You have to start somewhere,” she offered.

Mr. Bouw basically agreed. “The park is an incremental step,” he said. “From an engineering and landscape design perspective the new plan is an improvement. Is it perfect? No. Did the city handle this well? No. Is it everything that ought to happen? No. But we don’t have time to wait for the perfect.” Or as Mr. Tran phrased it, “The process worked in the imperfect ways local government works.”

I left Mr. Bouw and headed back north to watch workers installing the first riverfront fortifications. Around 23rd Street, a crew in yellow vests and hard hats removed old sewer pipes and assembled new drains. A different crew maneuvered concrete molds on either side of a new 10-foot-high flood wall along the riverfront. That’s where I found Ahmed Ibrahim, senior construction manager for the fortifications north of 15th Street.

“This is a special project,” he told me. “I live in Staten Island and saw how desperate people there were during Sandy. Their houses flooded. Some of them lost everything and moved away. This project is special because nothing like it has been done here. But it’s also special because it shows we can build flood walls and new parks.”

Maybe. When the federal government chose to subsidize the BIG U, the park was projected to be fortified by now. When the mayor announced the new design, the completion date was set for 2023. Then community members objected to closing the whole park at once, so a phasing plan was adopted for construction that pushed the completion date to 2025. Then came Covid and various lawsuits.

Now the city says, barring further legal or other delays, East River Park should be done in 2026. Whenever it is finished, Ms. Ortiz told me, she plans to sit with her daughter by the river, in the shade of a new amphitheater, and watch the boats sail by.

We remain mired in processes that can take much too long to resolve urgent challenges, with neighbors battling neighbors, experts battling experts and no one with a mandate to take the long view.

If the story provokes thoughts about inclusion, expertise or problem-solving in your own community, we hope you share them with us at: [DearHeadway@nytimes.com](mailto:DearHeadway@nytimes.com)

PHOTOGRAPHS BY DANIEL ARNOLD FOR THE NEW YORK TIMES

## Hindsight

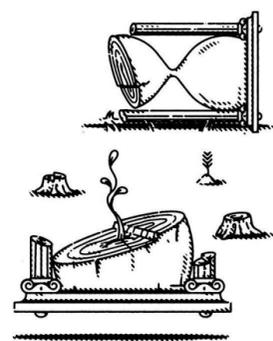
What can we learn from the outcomes of five predictions or promises expected to be realized by now?



BRUNO KELLY/REUTERS

About 80 percent of the trees razed in the tropics make way for commodity crops.

## What Does It Mean to Sell Forest-Friendly Candy?



**Companies like Mars, Kellogg's and Nestlé pledged to help reduce deforestation in their supply chains by 2020.**

Illustrations by MIKE HADDAD

By LUCY TOMPKINS

When a shopper in New York, say, plucks a Milky Way bar from a grocery store shelf, that shopper becomes the final link in a long chain that might have started on a patch of land in Ghana where a tropical forest recently stood.

About 80 percent of the trees razed each year in the tropics are cleared to make space for growing the cocoa, soybeans, palm oil and cattle that are the raw materials for chocolate, cereal, leather seats and thousands of other products.

Ten years ago, some of the world's largest companies, including Coca-Cola, Kellogg's, Walmart and Mars, pledged to change their practices to help end deforestation by 2020. Some, like Nestlé and Carrefour, went even further, saying they would eliminate deforestation from their supply chains altogether.

The 2020 deadline arrived, and some companies reported advances toward their goal. No company, however, could say it had eliminated forest destruction from its supply chain. Many others did not even try, said Didier Bergeret, sustainability director for the Consumer Goods Forum, the industry group of more than 400 retailers and manufacturers that organized the pledge.

And annual deforestation in the tropics, where trees store the most carbon and harbor the

most biodiversity, has lately been on the rise.

### What is in supply chains?

Many companies that committed to achieving "net zero" deforestation at first assumed the goal could be accomplished by buying from certified sustainable sellers, said Justin Adams, director of the Tropical Forest Alliance, an organization that helps companies meet their commitments. Looking back, Adams said, that was a naïve approach to a complex problem.

For one thing, companies have to figure out exactly where their commodities come from. Mars, for example, is one of the world's largest users of cocoa, which it buys from suppliers like Cargill. But those suppliers buy their cocoa, too, and at the beginning of the chain are the growers, some of whom are small farmers in Ivory Coast, Ghana and elsewhere. By the end of 2020, Mars said that it was able to trace about 43 percent of its cocoa to specific farms.

The company has had better luck mapping its palm-oil supply chain. When it did, it discovered that its oil came from 1,500 palm-oil mills, a number the company described as "far too complex to manage." It has since reduced the number to 87. Along with a nonprofit organization called the Earth Equalizer Foundation, it uses satellite imagery to monitor land use on the plantations it sources from to ensure they aren't cutting down forest.

Nestlé reported in 2020 that its suppliers of palm oil, pulp, soy, sugar and meat were 90 percent deforestation-free. The company did some on-the-ground and satellite monitoring, but the determination largely drew on the fact that the commodities came from "low-risk regions" like Europe or the United States, where there is unlikely to be deforestation for products like soy. The company did not include cocoa or coffee in its original goal but said those crops would be part of its next effort to reach zero deforestation in 2025.

If companies can't track a commodity's origin, they can't be certain that it was grown without eliminating trees. As The New York Times recently documented, ranchers in Brazil operating on illegally deforested land sold at least 17,700 cattle over three and a half years to intermediaries, who then sold them to giant meatpackers. The original illegal farm did not appear in the supply chain documents. All of these factors make it difficult to rate the success of companies' efforts.

### Are there other ways?

The companies that have voluntarily made progress on this front are in the minority, but some are pushing for these standards to be more widely adopted, and for governments to enact legislation that would force change across the entire industry.

Laws and public pressure have already made a difference. Brazil is backsliding now — a result of

President Jair Bolsonaro's aggressive development policies in the Amazon — but just a few years ago, it was being hailed as a conservation success story.

From 2004 to 2012, deforestation in the Brazilian Amazon fell by 84 percent. Brazil brought more of the forest under legal protection and stepped up enforcement of illegal logging laws. In 2006, following an uproar from groups like Greenpeace, the Brazilian government also brokered a voluntary moratorium with major soy buyers like Cargill, which significantly reduced deforestation for soy.

"What Brazil did to reduce deforestation could happen in other countries, and has happened to some extent in Indonesia," said David Gibbs, research associate at the World Resources Institute. "But those reductions in deforestation are always potentially temporary and can be reversed."

"So in that way," he added, "Brazil is both a hopeful tale and a cautionary tale."

In Indonesia, tropical forests and peatlands fell to the palm oil industry, which exploded in response to biodiesel incentives in the United States and Europe. The catastrophic environmental damage that followed galvanized new efforts to limit the clearing and burning of forest. Indonesia's annual deforestation rate is now the lowest it has been in nearly 20 years, according to Global Forest Watch.

This striking reversal shows

what can happen with enough motivation. But recovering from damage is not nearly as easy as inflicting it. New trees can be planted, but it takes decades for trees to develop the "photosynthetic machinery" needed to sequester carbon at high rates, said Mark Harmon, a forest ecologist at Oregon State University. "It is not an instantaneously renewable resource," he said.

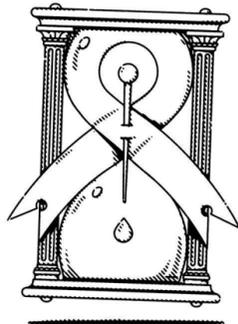
### What do promises accomplish?

There is cause for hope, said Nadia Bishai of CDP, a nonprofit group that tracks and ranks companies that have the greatest influence on tropical deforestation. In the past, biodiversity was the main argument for preserving tropical forests. But "forests have become central to the climate discussion," she said. And trees' carbon sequestering powers motivated European Union rules aimed at curbing deforestation as well as the recent pledge by leaders of more than 100 countries, including Brazil, China and the United States, to end deforestation by 2030. The signatory countries are home to about 85 percent of the world's forests, making it the most sweeping agreement yet on forest conservation.

"I think we're a bit more hopeful this time around," Bishai said. "This collective action is the key for the future."

As companies' 2010 pledges make clear, a vow is not an outcome. But it can at least point the way.

## What Does It Mean to Turn the Corner on a Viral Epidemic?



**United Nations projections indicated that 150 million people would be infected with H.I.V. by 2021.**

By SARIKA BANSAL

The story of the past two decades of the fight against H.I.V. can be told through the life of Juliet Awuor Otieno. She was 18 years old and living in Nairobi, Kenya, in 2001 when she learned she was pregnant. On a visit to the doctor, she was tested for H.I.V.

“I was given the results in a paper that looks like a receipt that was stamped ‘POSITIVE,’” she recalled. “I cried for 30 minutes. People didn’t want to be associated with H.I.V. I also did not want to be associated with H.I.V.”

That year, the United Nations projections indicated that 150 million people worldwide would have been infected with H.I.V. by 2021. But that disastrous outcome did not come to pass. The Joint United Nations Program on H.I.V./AIDS, known as U.N.AIDS, estimates that around 79 million people have been infected with H.I.V. since the epidemic began — still a calamitous number, but just over half of the feared total.

**How did the turnaround begin?**

In Kenya in 2001, as in many parts of the world, an H.I.V. diagnosis came with the horror of imminent death. Antiretroviral therapy, or ART — a daily regimen that prevents the virus from multiplying in the body — had proven its general effectiveness but was costly. In 2000, according to Doctors Without Borders, a year’s worth of treatment would cost a single patient \$10,000 to \$15,000.

Ms. Otieno, a reproductive health advocate, was put on an antibiotic, Septrin, to avoid the opportunistic infections that can accompany H.I.V. “I was not even told about ART — I did not know about ART,” she said. She was ashamed of being H.I.V.-positive and fearful that her family would learn of her status, so she tossed most of the Septrin in the trash. Her baby boy, born in 2002, most likely contracted H.I.V. from her and died from pneumonia when he was 5 months old. She developed toxoplasmosis, a parasitic infection, the following year; her

right side is still partially paralyzed.

During this harrowing time for Ms. Otieno, H.I.V./AIDS was fast gaining attention as a global human rights issue, setting into motion changes that would begin to turn around the H.I.V. pandemic for the world — and for Ms. Otieno herself. Activists pressured pharmaceutical companies to remove patent protection on antiretroviral drugs to reduce the drugs’ prices and called on manufacturers of generic medicines to create affordable versions. In 2003, a year’s treatment cost a patient in a low- or middle-income country \$1,200. By 2018, it cost less than \$100.

Governments and international organizations began to commit more seriously to fighting H.I.V./AIDS. In January 2002, the Global Fund to Fight AIDS, Tuberculosis and Malaria was established with \$1.9 billion in pledges from Group of 8 nations. The next year, President George W. Bush announced the creation of the President’s Emergency Plan for AIDS Relief, or PEPFAR, which began with a budget of \$15 billion for five years and was intended to bolster treatment and prevention in the hardest-hit countries, particularly in sub-Saharan Africa. In 2003, the World Health Organization announced the “3 by 5” initiative, which aimed to get three million people on antiretroviral treatment by 2005. (The goal was not met, but it helped to spur international agencies into action.)

“PEPFAR changed the landscape of H.I.V. services, bringing treatment to where the burden was,” said Annette Reinisch, a senior disease adviser at the Global Fund.

“It sounds easy to say that more people are on ART today, but there’s a big system behind that,” said Lucie Cluver, a researcher at the University of Oxford and the University of Cape Town who specializes in H.I.V. and children. “You have to get a pill from a pharmaceutical company to a tiny clinic on a hill, to get someone who knows



Protesters at a 2010 AIDS conference in Vienna called for more funding.

SAMUEL KUBANI/AGENCE FRANCE-PRESSE — GETTY IMAGES

enough and can engage the person who needs to take it every single day. There are all these logistical and procurement processes, all this stigma. These achievements reflect a level of complexity that is daunting when you think about it.”

Within a decade of the U.N.’s warning, H.I.V., which had been a lethal infection for millions of people around the world, had become a manageable chronic disease for many.

In January 2005, at a Doctors Without Borders clinic in a Nairobi slum, Ms. Otieno learned that antiretroviral treatment was available in Kenya. A counselor warned her that the drugs could have side effects like rashes and vomiting, and that if she skipped any doses, she could develop worse infections. Support from loved ones was crucial. Ms. Otieno, realizing she had a second chance at life, decided to take her treatment seriously.

After years of keeping her status a secret, she disclosed the truth to her mother.

**Are we winning the battle today?**

The global fight against H.I.V. and AIDS continues. In 2011, U.N.AIDS announced an ambitious campaign called Getting to Zero. Public health officials committed to the goal of zero new infections, zero discrimination and zero AIDS-related deaths by 2030.

But as the world has learned from Covid-19, lethal viruses have many ways of fighting back. In contrast to efforts to fight the virus that causes Covid, an H.I.V. vaccine has eluded decades of effort. Many experts doubt the ambitious new targets will be reached by 2030. The virus still carries tremendous stigma, especially in places with laws that restrict homosexuality or policies that promote abstinence. Pediatric H.I.V. remains a diffi-

cult challenge. Covid has also diverted resources from H.I.V. treatment and prevention.

In July 2021, Ms. Otieno gave birth to a healthy baby boy. She continues to keep the virus under control through ART. Looking ahead, she says her work is focused on maintaining funding for H.I.V. services so that people can continue to get treatment; if long-term care doesn’t remain affordable for the millions living with H.I.V. as a chronic disease, many people may fall off ART and become more infectious. Advocates are also pushing for advancements in preventive measures like pre-exposure prophylaxis, or PrEP — a daily pill to stave off infection — and trying to eradicate H.I.V. stigma.

“We cannot be triumphant,” Ms. Cluver said. “It would be a mistake to say we’re winning. But we’ve made substantial inroads into reducing what could have been even worse.”

## What Does It Mean to Fulfill a Climate Pledge?



**The European Union promised to reduce its emissions 20 percent by 2020. Behind the successes, the reality is more complex.**

By LOIS PARSHLEY

As the 2009 global climate summit in Copenhagen approached, the European Union raced to announce an ambitious target for reducing greenhouse gas emissions. The bloc’s leaders worked to smooth over the competing interests of more than two dozen members, settling on a three-part plan that it promised to meet by 2020, nicknamed the 20-20-20 Pledge: The bloc would reduce its emissions by 20 percent from 1990 levels, increase renewable energy to 20 percent of electricity use and increase energy efficiency by 20 percent.

By the 2020 deadline, the European Union had achieved two of its three goals — an example of a major emitter achieving a climate pledge. Overall emissions were 24 percent lower than in 1990, by the bloc’s accounting, and renewable energy was about 20 percent of its electricity use. But many climate scientists and others involved in the process question the European Union’s accounting.

**How did Europe meet its goal?**

There were stumbling blocks in the European Union’s plan to lower its carbon output. When it began in 2005, the bloc’s emissions trading system was the world’s most ambitious effort to put a price on polluting with carbon. But early on, that price was low enough that some considered the system worse than useless. By 2013, concerns about the system’s viability were so dire that the European Parliament stepped in to lift the price of carbon. Britain went further, fixing the minimum price for power producers. These changes helped to bring about a shift: By 2017, coal had fallen to 7 percent of Britain’s electricity generation, from 40 percent in 2013.

As coal use declined across Europe, the power sector shifted to renewable sources. But that created its own controversy.

“A fundamental mistake was made at the beginning, and we’re still suffering,” said Bas Eickhout, a Dutch politician and member of the European Parlia-

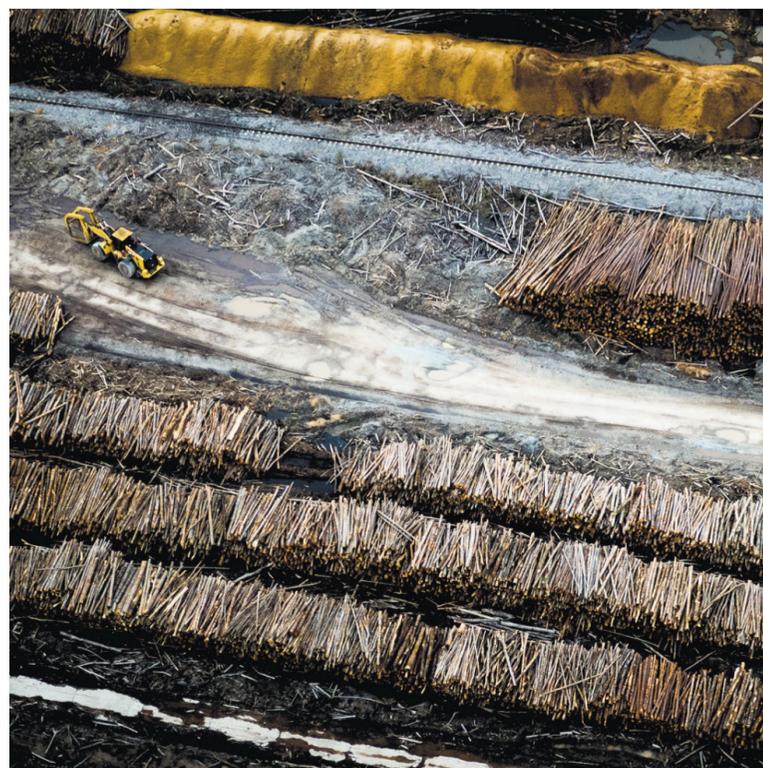
ment. Back in 2009, Eickhout was a scientist whose research pointed to the importance of rigorous standards for sustainability. He was dismayed when the European Union chose to count biomass energy as a renewable, carbon-neutral source, akin to wind and solar.

Most biomass is wood that comes from cutting down forests and making the material into pellets. Because pellets can be burned in existing coal-fired power plants, they provide an easy, comparatively cheap way for countries to reduce their emissions — at least on paper.

The European Union and the Intergovernmental Panel on Climate Change — the main scientific body on climate change — count carbon emissions from biomass where the trees are cut down, not where the material is burned. That means the bloc’s accounting doesn’t factor in the carbon footprint of processing trees into wood pellets, shipping them across the ocean or burning them for fuel.

Trees can regrow, which is why the European Union considers biomass renewable. But critics argue its true emissions impact has been underestimated. Seth Ginther, the executive director of the U.S. Industrial Pellet Association, a trade group, said that the southeastern United States, where much of the world’s biomass is currently harvested, had actually increased its forest stock in the past 50 years. But trees planted for timber aren’t as effective as native forests at storing carbon, and it can take many years — a century, by some estimates — for newly planted forests to accumulate as much carbon as mature ones. And burning wood can be even less efficient than burning coal; it releases more carbon into the atmosphere per megawatt produced.

Europe’s renewable energy production has doubled since 2004. While solar power has grown the fastest, by 2016 biomass accounted for almost 60 percent of the bloc’s total renewable energy. Thanks in part to



A North Carolina plant where logs are made into fuel pellets.

ERIN SCHAFF/THE NEW YORK TIMES

E.U. subsidies, the American wood pellet industry ballooned to around nine million tons in 2018, from 0.3 million tons in 2009. Because of the high cost of energy in Europe this past winter, 2021 is the first year that burning biomass has been profitable without government subsidies.

**Did Europe do enough?**

The European Union’s most significant chance to address these criticisms came after the Paris Agreement in 2015. The bloc committed to cut emissions by 40 percent from 1990 levels by 2030; that target was increased to 55 percent in 2021.

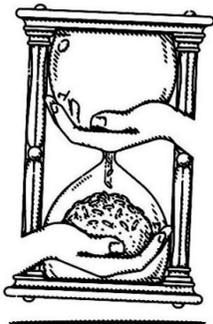
To meet these promises, the European Union revised its renewable energy policies in 2018 and is in the process of doing so again. The revisions limit the use of woody biomass for energy and restrict its sourcing from highly biodiverse forests, but some environmental groups say the proposed standards still aren’t enough.

Europe is still moving faster on more ambitious climate goals than other countries, including the United States. A United Nations report released in October found that even if every country in the world met its current targets, the world would still see 2.7 degrees Celsius of

warming by the end of the century, which “would lead to catastrophic changes in the Earth’s climate.”

In that light, was the European Union’s 2020 target ambitious enough? “Depends on your definition of ambition,” said Yvo de Boer, the executive secretary of the United Nations Framework Convention on Climate Change from 2006 to 2010. “It was probably recognized as not being ambitious enough from the perspective of avoiding dangerous climate change. But I think from the perspective of politics, it was seen as sufficiently ambitious and a critical step in the right direction.”

## What Does It Mean to Reduce Extreme Poverty?



**The U.N. pledged to cut by half the proportion of people living in the worst conditions by 2015.**

By LUCY TOMPKINS

When Alan Piazza visited isolated villages in north-central China in the 1990s as an economist for the World Bank, he found a place of “almost impossible poverty.”

People in the Ningxia region lived in cave dwellings dug into desert sand. They had no electricity, no clean water, and the land had been badly eroded by grazing goats and sheep, turning the already arid terrain into a “moonscape.” The soil was poor, and village leaders brought Mr. Piazza to visit families whose bins of corn would be empty months before the next harvest. To Mr. Piazza, improving conditions there seemed unimaginable.

But when he returned to the area in 2016, he was overwhelmed by the transformation. Families were living in brick homes with electricity and had access to clean water. Nearly every child attended elementary school. Shrubs and grasses blanketed the hillsides, having returned after the government paid farmers to prevent their animals from grazing.

In 1990, about 36 percent of the global population — and nearly half of people in developing countries — lived on less than \$1.25 a day, the World Bank’s definition of extreme poverty at the time. (It’s now \$1.90 a day.) In 2000, United Nations member states pledged to cut extreme poverty worldwide — specifically to halve the proportion of people living in extreme poverty, from 1990 levels, by 2015.

Bottom line: The U.N. goal was met. By 2015, the share of the world’s population living in extreme poverty fell to 12 percent, from 36 percent in 1990, a steep decline in just two and a half decades. During a single generation, more than a billion people around the world climbed out of extreme poverty, surpassing the goal.

**How did it happen?**

The U.N.’s vow to cut extreme poverty came with aid commit-

ments from rich countries as well as debt forgiveness, which allowed some nations to put resources toward education or health rather than toward paying debt service on loans to international funders. But those measures were not primarily responsible for the overall rise in incomes.

Though poverty has declined everywhere, China and India, the world’s most populous countries, account for a vast majority of the progress. China’s economic growth, spurred by reforms that opened its economy to trade and improved agricultural productivity, as well as foreign direct investment, gave the government the means to reduce poverty.

The government provided free elementary education for all children and financed major construction projects to bring electricity and clean water to rural areas. People moved from the countryside to coastal cities, where they worked in factories and sent money home. Government-sponsored programs moved more than a million people — some reluctantly — from the drought-stricken desert to newly built villages closer to roads and water.

China’s G.D.P. rose an annual average of 9.5 percent for 40 years, in what the World Bank called “the fastest sustained expansion by a major economy in history.” (That economic growth also contributed to carbon emissions, but that’s another story.)

“When countries see sustained economic growth, you also see declining absolute poverty,” said Charles Kenny, a researcher at the Center for Global Development, a nonprofit think tank. “It’s as close to a universal law as we have.”

The most recent World Bank figures show just 0.3 percent of China’s rural population living under \$1.90 a day.

“It’s a great achievement,” Ning Zhu, an economist at the Shanghai Advanced Institute of Finance, said. “Of course, as an economist, we always worry about sustainability.”



GREG BAKER/AGENCE FRANCE-PRESSE — GETTY IMAGES

China’s boom gave the government the means to lift the rural poor.

Much of China’s success has been tied to transferring cash from the state to the private sector, Mr. Zhu said, but the coronavirus pandemic and China’s escalating debt may mean it cannot continue to rely on staggering economic growth.

China’s story is unique, but poverty has been declining in much of the rest of the world, too. Mexico and Brazil raised living standards by giving money to the poor and requiring only regular health checkups and school attendance for children in return. Dozens of other countries have tried similar programs. Though these initiatives can’t replace sweeping economic growth, they, as well as programs like meals in school and social pensions, can have significant effects: The World Bank estimates that social safety net programs are responsible for 36 percent of the global reduction in

extreme poverty.

Americans felt the effects of this kind of spending during the coronavirus pandemic, when the government extended unemployment benefits and sent close to \$1 trillion in direct stimulus payments to about 85 percent of households. This temporary expansion of the social safety net caused poverty to drop to the lowest levels on record in the United States.

**Isn’t \$1.90 a day a very low bar?**

The figure for extreme poverty is set by the World Bank to track trends among the poorest people in the poorest countries. Above this threshold lie categories of only slightly less dire poverty. Almost half of the world — 3.3 billion people — lives on less than \$5.50 a day, still barely enough to meet basic needs in many countries. In China, despite its progress, 92 million

people living in urban areas still get by on less than that amount.

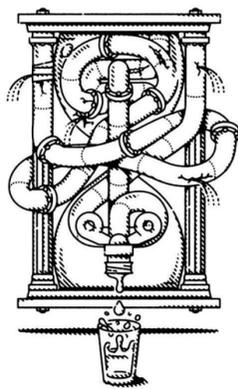
About 700 million people, mostly in sub-Saharan Africa, continue to live in utter destitution on less than \$1.90 a day. The engine of economic growth has yet to rescue them.

The pandemic, too, showed how fragile some of the gains can be. The U.N. secretary general, António Guterres, warned that extreme poverty rose last year for the first time in decades as a result of Covid-19, widening inequalities between rich and poor nations.

Mr. Kenny says he oscillates between elation and despair over the progress of the past few decades. Lifting much of the world from abject poverty has been an unprecedented achievement, he said. And yet, the benefits have been frustratingly uneven.

“Both of those things are true,” he said.

## What Does It Mean to Supply Clean Water?



**The U.N. promised to halve the share of the globe without access to clean drinking water by 2015.**

By LUCY TOMPKINS

For a long, long time, subsistence farmers in Ethiopia’s northern highlands have risked illness, and even death, in the essential act of drinking water. Gathering water from the surface of contaminated ponds or springs, villagers coped with cholera outbreaks and children dying of diarrhea before even reaching their fifth birthday. Until recently, this was their only option.

But in 2015, after a concerted effort by the government and aid organizations to dig wells and install communal taps, the World Health Organization recognized Ethiopia for its remarkable progress. In 1990, it reported, just 14 percent of the country’s population had access to clean and safe water; by 2015, 57 percent did.

The push for access to clean water in Ethiopia came in part out of a goal set by United Nations member countries in 2000. Those countries vowed to cut in half the proportion of the world without access to safe drinking water by 2015, compared with 1990 levels, and on paper, progress looked spectacular. In 2012, Ban Ki-moon, then the U.N. secretary general, announced that the safe-water goal had been met ahead of schedule.

And yet villagers in Ethiopia and elsewhere continued to get sick.

Shibabaw Tadesse, a researcher at the Ethiopian Institute of Water Resources at Addis Ababa University, set out to discover why. In 2019, he and a group of researchers identified 248 households that met two criteria: They got water from a so-called improved source, like a pipe or covered well, and someone in the household had been treated for diarrhea. The researchers collected their water samples and brought them back to the lab.

The results? In two-thirds of the households, the water was contaminated with *E. coli* or other diarrhea-causing toxins, making it unsafe to drink. For all

the progress Ethiopia has made, far fewer people were actually drinking clean water than the W.H.O. reported.

**What went wrong?**

The decades after the U.N. summit coincided with a period of rapid growth in countries like China, India and Brazil, which helped to spur infrastructure improvements. Most of the money for these efforts came from the countries themselves, though aid organizations also helped, said Rick Johnston, a technical officer at the World Health Organization’s Joint Monitoring Program for Water Supply, Sanitation and Hygiene.

But when it came to verifying the pledge, there was a problem. The only way to know whether water coming out of pipes or wells is safe to drink is to test it, and at the time, few countries had the means to do that at scale. Instead, W.H.O. researchers relied on the one thing they could measure: the number of people getting water from improved sources.

Pipes, however, can deliver dirty water. In Bangladesh, for instance, piped water in urban areas is more likely to be contaminated than water from a primitive well or borehole in the countryside, according to a 2021 report by W.H.O. and UNICEF researchers. If you drill a hole in the ground in Bangladesh, sand and gravel act as natural filters, said Mr. Johnston, one of the report’s authors. Piped systems in urban areas, on the other hand, deliver water sporadically, creating low pressure that allows contaminated water to seep in through cracks and misaligned joints.

When a team of researchers led by the University of Bristol and University of North Carolina at Chapel Hill measured water quality in five countries in 2008, they found that many supposedly safe sources were actually contaminated. The U.N. had said that some 800 million people still did not have access to clean drinking water in 2010, but the researchers



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Ethiopia made a concerted effort to dig wells and install communal taps.

estimated that the figure was really more like two billion.

Unimproved water sources like open ponds are more likely to be contaminated, Mr. Johnston said. “But even among improved sources, we’ve found examples of them being contaminated — even heavily contaminated.”

**Was the goal achieved?**

We don’t actually know. The pledge was based on improving levels from 1990, and there isn’t robust data on safe water going back that far. But significant progress has been made. For one thing, deaths from diarrhea

disease linked to contaminated water have fallen significantly, to about half a million a year — down from more than two million in 2000, even as the global population has grown.

Researchers are also working with better information. Technological advances since 2015 have made it easier to test water quality, so now the U.N. not only can track how water is delivered, but also know whether it’s safe to drink. Researchers are also asking more questions: Is the water available at home, or are people, women and girls in particular, spending an hour a day

collecting it? Is it available when needed, or only sporadically? Is it affordable? The result is a new metric called “safely managed drinking water sources,” which means water that is clean and available when it’s needed on site. About 74 percent of the global population now meets this standard, the U.N. recently reported.

The most recent U.N. goals aim for universal access to safe water by 2030. It is an ambitious bar that is extremely unlikely to be met. This time, at least, there will be a better idea of where the world stands.