COURIER

Provoking Thought and Encouraging Dialogue on World Affairs

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Godzilla and Global Governance

By Jennifer Smyser, Editor

Hollywood moviemakers have long used some of humanity's worst nightmares for their films: flesh-eating zombies, alien invaders, fast-spreading plagues, or World War III. Filmmakers know that we like the idea of conquering our greatest fears and that's what entices us to go to the theater.

The new remake of the classic film Godzilla—the summer blockbuster featuring a gigantic prehistoric creature that feeds on radioactive material—is the latest cinematic rendition of an attempt to deal with our phobias.

"In the old days…Godzilla really meant something. He was the supreme embodiment of atomic-age terrors, meting out punishment (and also offering redemption) for humankind's technological hubris," wrote movie critic A. O. Scott.

"There is still plenty of that to contend with [in the new film], but the focus of global anxiety has shifted from nuclear annihilation to climate change and related problems.... We've made a big mess of things with our missiles and our power plants, but Godzilla…is nature's way of restoring balance."

While in the fictional world balance might be restored by a monster, that's not an option for the world we live in. Since we don't have Godzilla, the job is left to humankind. And for us the toolbox is global governance: the collective effort by countries, international organizations, and nonstate actors to solve common problems.

In today's interconnected world, where the challenges and concerns of one country are often those of another, coordinated policy responses matter. The health of diplomatic relationships can impact policy progress on key issues that affect us all, like climate change. The ability of national governments to work together can determine whether preventive measures are taken in situations that might lead to mass atrocities or genocide. Habits of cooperation can influence the strength of a system to prevent illicit activities like nuclear trafficking.

But it isn't just governments that have a role in global governance, and this means that nongovernmental experts, businesses, civil society, and others have to be part of the effort to conquer our greatest fears.

At the Stanley Foundation, we believe that global governance will only be improved with multilateral action that leads to lasting solutions. Only with effective global governance will we create a secure peace with freedom and justice.

And that's the Godzilla-free and nightmare-free world we want to live in.

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Despite the presence of peacekeepers and French soldiers, violence has continued to flare in the Central African Republic, where, after more than a year of bloodshed, thousands have been killed and a million sent fleeing. Pictured: A rebel fighter in the town of Bria in April 2014. (Reuters/Goran Tomasevic)

Eight Days in Bangui

By Evan Cinq-Mars

The UN Security Council has authorized the deployment of around 12,000 peacekeepers to the Central African Republic in an effort to end the killing. Pictured: Peacekeepers from Morocco in Bangui in June 2014. (UN Photo/Catianne Tijerina)

Helicopters circled overhead as French and African Union (AU) forces sped out of M'Poko International Airport in Bangui. The capital of the Central African Republic (CAR) was in lockdown after AU peacekeepers declared war on the predominantly Christian militias, known locally as anti-balaka* forces, following an ambush that claimed the lives of a number of its troops.

My colleagues at the Global Centre for the Responsibility to Protect and I collected our bags and searched for our driver. Bangui's main roads were closed, and running battles were ongoing in a number of areas; our ride had been unable to make it.

Nearly four hours passed before two French gendarmes got us into the vehicles of diplomatic staff leaving the airport. After creeping through the streets of Bangui, we arrived at the Hotel Ledger Plaza Bangui, a surreal place where we sat on the sprawling poolside terrace adapting to our new, luxurious surroundings as gunshots and grenade explosions rang out beyond the hotel's guarded entrance. This became a nightly ritual during our time in CAR.

We had come to CAR to assess efforts to uphold the Responsibility to Protect (R2P) principle—a commitment made by all UN members to prevent and halt genocide, war crimes, crimes against humanity, and ethnic cleansing.

The country was in the midst of a brutal conflict that erupted when the Muslim Seleka rebel alliance began a march on Bangui to topple the government of then-President Francois Bozize in late 2012. The Seleka's advance was marked by gruesome atrocities, including a penchant for targeting CAR's majority Christian population. As mediation faltered, in March 2013 the Seleka overthrew the Bozize government and took control of CAR.

Anti-balaka militias sprang up as local self-defense forces in the north and west of CAR in the face of continued Seleka abuses. But elements of the militias also began to turn their weapons on the Muslim population and anyone supportive of the Seleka.

Their vengeance culminated in a December 2013 attack on Bangui and the partial capture of Bossangoa, a city north of the capital, where militias were supported by armed loyalists of the ousted former president and elements from the national army. The attacks set off a cycle of tit-for-tat violence between the Seleka and anti-balaka militias.

More than 2,000 people have been killed since December in Bangui alone, according to the United Nations. The death toll in the capital is likely much higher than that, and countless massacres have been perpetrated in the interior of the country. No one really knows how many have been killed.

MUSLIMS UNDER SIEGE

Hampered by waning authority, a lack of capacity, and an uncontrollable security situation, the transitional government, which was set up to bring an end to the violence, has been unable to meet its responsibilities.

There are 2,000 French forces, 5,800 AU peacekeepers, and 700 European Union troops on the ground seeking to protect civilians and restore security. We were told that the French and AU forces have prevented "Srebrenica-style massacres" in CAR. But as many as there are in number, the current arrangement is overstretched, underresourced, and unable to provide adequate protection to civilians.

The UN Security Council has mandated the deployment of a 12,000-strong peacekeeping operation, but troops and police will only start deploying in September 2014. The expectations for the UN peacekeepers are incredibly high—nearly every resident we spoke with said they wanted the UN force to bring peace to CAR.

In the interim, as the United Nations plans and prepares for the troop deployment, civilians continue to suffer. The conflict has been particularly brutal for CAR's minority Muslim population. At least 80 percent of Muslims have been forced to flee or been killed since December, according to UN estimates. The remaining Muslims, figured to be anywhere from 10,000 to 15,000 people, are living in besieged areas.

Evacuations and relocations of thousands of these civilians have had to proceed. UN officials and humanitarian groups worried that any transfer could perpetuate ethnic cleansing but decided that the action was necessary. Our thoughts were clear: If populations in these enclaves wanted to go, and if the alternative to relocation was death, then it had to be facilitated.

Despite the surging interreligious fighting, government officials were adamant that the conflict was not a religious one. Religion, we were told, was being manipulated to mobilize communities against one another as CAR's political elites jockeyed for power. While this was true, the fury of the sectarian violence was hard to ignore.

On March 27, our second day in Bangui, two grenade explosions pierced the air as we sat on the hotel's terrace. We heard the next morning that Muslim youths had attacked a Christian funeral procession with grenades.

BOTTOM OF THE BOTTOM OF THE LIST

On one of our final days in the country, UN staff facilitated a tour of a site where thousands of civilians had sought refuge from the fighting in Bangui. The conditions in the camp were harsh and would only get worse with the looming rainy season.

We were taken to where displaced children went to learn. The toll on CAR's children has been brutal—more than 6,000 child soldiers are in the ranks of armed groups. The makeshift classroom we visited was a sanctuary from the violence for the children inside. We later walked by a group of young boys lost in a game of soccer on a break between classes. It was heartening to see their smiles. It was equally heartbreaking. With no end to the violence in sight, what would happen to them?

The international community has enacted most measures under the R2P framework in CAR—from the deployment of peacekeepers to diplomacy, support to the government, sanctions, and the involvement of the International Criminal Court. Yet the response has still been inadequate, and all of the Muslims of CAR may be driven out or killed before the UN peacekeeping operation arrives.

We will have to account for how we failed to prevent the forcible displacement and killing in CAR. And we will struggle, once again, with what it means to say "Never again."

On one of our last nights in Bangui, while confined to the hotel's terrace after dark, my colleagues and I talked with UN officials about the situation. The sad truth of it, they said, is that CAR is a "bottom of the bottom of the list" crisis. As the words sunk in, I wondered: How many more times must we hear this awful excuse before we match our words with deeds?

Evan Cinq-Mars is a research analyst with the Global Centre for the Responsibility to Protect. He was part of a group from the Global Centre, the Stimson Center, and the Center for Civilians in Conflict that conducted a research mission to CAR between March 25 and April 1, 2014.

* Anti-balaka *is an umbrella term referring to various vigilante groups currently engaged in armed resistance against Seleka rebels in the north of the CAR* ("balaka" *is a Sango word for machete,* "anti-balaka" *means "invincible").* —www.trackingterrorism.org

Global Governance Reimagined

An "Astonishing Diversity" of Cooperation

By Keith Porter

Packages are sent across international boundaries every day, flights go from country to country without incident, diplomats meet to tackle serious threats to world stability on a regular basis with little drama, and medical experts share best practices with colleagues across the planet.

All this (and much more) happens every day within well-established rules thanks to a process called global governance, which formalizes cooperative problem solving among nations. While the success rate has been mixed, the existence of the process inspires hope that important modes of international cooperation can be governed even in the absence of any formal, universal rules.

MORE VENUES

At the end of World War II, global governance was largely defined by the United Nations and its agencies, and while the world body is still the centerpiece of global governance, "what really marks the contemporary era is not the absence of multilateralism, but its astonishing diversity," according to Stewart Patrick, a senior fellow at the Council on Foreign Relations. The growing landscape of multilateral venues includes the G-20, the Nuclear Security Summit process, Global Action Against Mass Atrocity Crimes, regional organizations, and much more.

The diversity has the potential to break big global problems into manageable chunks and create opportunities to ex-

World leaders at G-20 Summit in Russia in September 2013. (UN Photo/Eskinder Debebe)

periment as each venue can be an incubator for new ways to approach issues and organize the players. However, we must assure that how we foster coordination and complementarity does not also promote more competition.

MORE ACTORS

Global governance has almost always been accomplished through organizing nation-state representatives at various levels (heads of state, ministers, ambassadors, regulators, etc.) to discuss and, hopefully, solve problems. Today, however, the issues and potential solutions have moved beyond the sole dominion of national governments to include nonstate actors such as corporations, nongovernmental organizations, religious groups, service clubs, and others.

More democracy and more globalization are the usual answers to the rise of nonstate actors. Advocacy movements thrive in the space created by liberal democratic governments. And globalizing trends, like the Internet and mass media, allow the movements to spread across borders create transnational membership.

Many of the entities want a voice in global governance—and many of today's most pressing problems cannot be solved without these groups. The involvement of nonstate actors has the potential to make global governance more responsive to public concerns, but it also raises tricky questions about who gets to be at the table and why.

MORE COMPLEXITY

Dealing with the discrete, specialized needs of issues like international civil aviation, global postal deliveries, and maritime cooperation, for example, have provided global governance success stories. But highly complex and integrated issues like cybersecurity and climate change are thus far not yielding to the current methods of multilateral cooperation.

"The degree of difficulty in global governance has gotten harder," according to Daniel Drezner, a professor of international politics at The Fletcher School of Law and Diplomacy at Tufts University and author of *The System Worked: How the World Stopped Another Great Depression.*

Despite all of this, global governance can, and frequently does, work. The triple challenge of more venues, more actors, and more complexity need not lead to despair or discourage multilateral engagement. In fact, these developments may very well hold the seeds of opportunity for creating more-sophisticated approaches, greater resilience, more-inclusive and sustainable outcomes, and an increased potential for concerned publics to impact global solutions.

Keith Porter is the president and CEO of the Stanley Foundation.

Syrian fighter jets and tanks pounded the northern city of Aleppo on September 13, 2012. More than 100,000 people have been killed and millions more displaced in a conflict between the Syrian government and rebels. Pictured: A woman holds her daughter and cries during an air strike. (AFP Photo/Sam Tarling)

Protection for the People

Innovations in Genocide Prevention

An Interview With the Executive Director of the Auschwitz Institute for Peace and Reconciliation

Governments shouldn't massacre people, and no one should let them do it. That's the basic thrust of the Responsibility to Protect (R2P) principle that all UN member states signed in 2005. Most of the controversy surrounding R2P is based on a narrow part of a section that deals with when the international community should intervene in the affairs of sovereign nations to stop mass murder.

Some say never, others say sometimes.

The debate overshadows the larger point that nations have a duty to protect the people within their borders. To shed light on the full meaning of R2P, the UN General Assembly began a series of annual discussions on the doctrine's three parts, known as pillars.

Later this year, the General Assembly will take up the second pillar—the international community's responsibility to assist states in fulfilling their responsibility to protect populations from genocide, war crimes, crimes against humanity, and ethnic cleansing.

The dialogue will explore the wide range of instruments that can be used to support at-risk states. Ahead of the meeting, Tibi Galis, executive director of the Auschwitz Institute for Peace and Reconciliation, gave the Stanley Foundation (TSF) a preview of what kinds of pillar two actions are being taken around the world and what's on the horizon.

TSF: Have we had any pillar two success stories?

Tibi Galis: Take Kenya, for instance. Following Kenya's 2007 election there was a tense standoff, with competing sides both claiming victory. This tension quickly descended into bloody ethnic and intercommunal violence resulting in the deaths of over 1,000 people and the displacement of another 350,000. However, in the five years leading up to the 2013 presidential election, Kenya—bolstered by the international community's pillar two obligation of providing assistance—made significant progress implementing conflict prevention and resolution mechanisms, resulting in a largely peaceful and legitimate election.

The assistance reinforced domestic efforts while foreign governments also provided funding for international NGOs [nongovernmental organizations] to organize and mobilize Kenyan youth against resorting to violence. This was done mostly through conflict-resolution workshops and the targeted use of social media and mobile-communications technology to promote and spread messages of tolerance. Another noteworthy point in the case of Kenya is the involvement of the International Criminal Court after the 2007 election and the deterrent effect it had on future aggression.

The international community's pillar two assistance was successful in Kenya because of its careful coordination, robust funding, and welcomed reception by the national government.

Of course, successful pillar two implementation occurs outside of Africa as well.

Tens of thousands of people were killed during Argentina's 1976-1983 "Dirty War"—a period of state-sponsored violence against left-wing opponents. Pictured: Relatives of some of those who disappeared during the military junta react outside a courtroom after a former army general was condemned to life imprisonment in the northern province of Tucuman in August 2008. (Reuters/Juan Pablo Sanchez Noli)

Argentina, for example, is on the forefront of domestic genocide prevention and regional leadership. Established in 2012, the National Mechanism for the Prevention of Genocide developed curricula and procedures for genocide prevention training and established channels for communication among government departments with the aim of processing information and, where appropriate, forwarding it to the competent organs of the United Nations. A number of in-country genocide-prevention training seminars have taken place in Argentina since the launch of their national mechanism.

TSF: What are some of the new ways pillar two is being implemented?

Galis: The most exciting front in the implementation of pillar two involves the creation of regional/subregional networks and national committees devoted to the prevention of mass atrocities. For example, the Latin American Network for Genocide and Mass Atrocity Prevention, supported by 18 Latin American states, is the world's leading initiative fostering capacity building and policy development toward genocide and mass-atrocity prevention.

The network provides a space for the exchange of best practices for public officials and aims to institutionalize a culture of genocide prevention throughout Latin America. The Auschwitz Institute serves as secretariat of the network, and we support member states by co-organizing training seminars and assisting in the development of national policies on genocide prevention. It's our hope that the network will serve as an example to be followed in other regions worldwide.

Although only two years old, the Latin American network is already an important success story of pillar two's implementation. UN Secretary-General Ban Ki-moon called it an effective "partnership for prevention," while the UN special adviser on the prevention of genocide, Adama Dieng, highlighted how "the motivation and achievements of the Latin American Network are already resonating worldwide."

TSF: Could you explain a little more about the network and its impact?

Galis: The structure of the Latin American network is based on the establishment of national and/or ministerial focal points. They are tasked with the identification of areas within their governmental structures where programs in genocide and mass-atrocity prevention can be implemented; they have been critical in the "localized" approach to genocide-prevention capacity building. Every six months, the focal points meet and engage in an interactive dialogue.

The aim is to see every state in Latin America effectively integrate the domestically developed function of preventing genocide and mass atrocities. What's more, we aim to see all government institutions share a common vocabulary of genocide and mass-atrocity prevention and engage in mutual interactive working relationships for prevention. Only then can we be assured that genocide and mass atrocities will be prevented.

The Rokkasho Nuclear Fuel Reprocessing Facility will be one of the world's largest plutonium production installations. Some nuclear experts worry that it could serve as a big store for would-be nuclear terrorists. Pictured: Antinuclear demonstrators protest in 1995 against a shipment of highly radioactive waste. (Reuters/ Eriko Sugita)

Plutonium Fever Blossoms in Japan

By Douglas Birch, R. Jeffrey Smith, and Jake Adelstein

TOKYO—When Taro Kono was growing up as the son of a major Japanese political party leader, he had what he calls a "fever for the atom." Like many of his countrymen, he regarded nuclear power plants as his country's ticket to postwar prosperity, a modern, economical way to meet huge energy needs on an island with few natural resources.

Over the next five decades, pronuclear sentiment led Japan to build the world's third largest fleet of nuclear reactors. Its officials spent more than two decades and $22 billion building a factory to create plutonium-based nuclear-reactor fuel, the largest ever to be subject to international monitoring. The facility is slated for completion in October at Rokkasho on Japan's northeast coast, kicking off a new phase in the country's long-term plan to increase energy independence.

By the time Kono was elected to the parliament, known as the Diet, at age 33 in 1996, however, he had become a skeptic about the Rokkasho plant. After interrogating scientists and meeting with critics, he concluded that a vast array of new reactors fueled by its plutonium faced huge technical challenges, posed a major proliferation risk, and probably would not reap the financial benefits claimed by its backers. He told the American ambassador at an embassy dinner in 2008 that its high costs were improperly kept hidden from the public.

But Kono's campaign in Japan against the plant has now been systematically squashed in what he and his allies depict as a telling illustration of the powerful political forces—cronyism, influence buying, and a stifling of dissenting voices—that have kept the nuclear industry and its backers in the utilities here going strong.

By all accounts, the Japanese nuclear industry's sway and its governmental support remain high, even in the face of technical glitches, huge cost overruns, and accidents like the meltdowns of three reactors at Fukushima three years ago, which led to the abrupt closure of all its remaining reactors.

The government of Prime Minister Shinzo Abe, who leads Kono's party, announced in February its support for restarting some reactors and possibly building new ones, designed specifically to burn plutonium-based fuel.

Abe did so with apparent confidence that he has the enduring support of—if not the public—the so-called nuclear power village, a tightly woven network of regulators, utility industry executives, engineers, labor leaders, and local politicians who have become dependent on nuclear power for jobs, income, and prestige.

Kono, a fluent English speaker who received his undergraduate degree from Georgetown University, said in an interview that

he has been talking about nuclear power "for the last 16 to 17 years," but "no one really paid attention, right?"

Kono was unable to defeat the plutonium fuel program, he said, because its powerful constituency includes not only members of the ruling party but bureaucrats, media leaders, bankers, and academics. They were, he wrote in a 2011 book, "all scrambling for a place at the table" where nuclear-related funds are distributed. The louder he complained, the more these elites turned their backs on him. Just 60 legislators out of 722 in the parliament's lower and upper chambers have joined the antinuclear caucus he helped organize.

Industry officials contend that Rokkasho's completion makes sound fiscal sense. Yoshihiko Kawai, president of Japan Nuclear Fuel Ltd., the consortium of 85 utilities and other companies that owns the plant, has argued that making new plutonium-based fuels from old reactor fuel—according to the Rokkasho plan—is thrifty, not wasteful. "By directly disposing of spent fuels, we would be just throwing this energy resource away," he told *Plutonium* magazine in 2012.

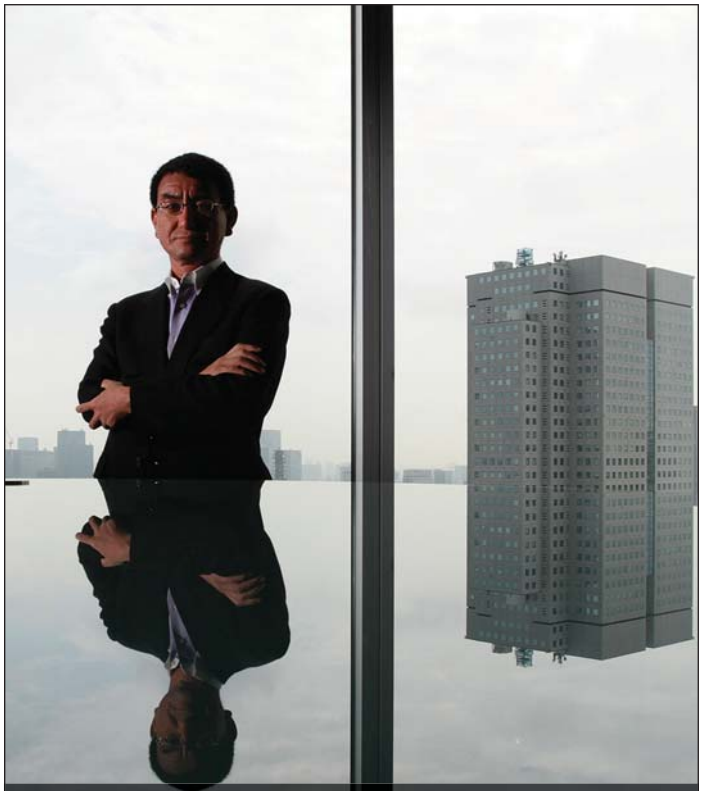
The publication is produced by a Japanese nonprofit group, the Council for a Nuclear Fuel Cycle, which has seven current or former lawmakers on its board and is dedicated to promoting the "peaceful uses of plutonium," a material initially created for use in nuclear weapons.

Its director, Satoshi Morimoto, who was briefly the country's defense minister in 2012, attracted attention when he asserted that year that the country's commercial nuclear power reactors have "very great defensive deterrent functions"—an apparent allusion to the fact that the plants Japan has built to make reactor fuel could be used to make fuel for nuclear arms, if Japan ever decided to do so.

A BROADSIDE OVER DINNER

On a warm, cloudless fall evening in 2008, Kono brought his strong views about the corrupting influence of the nuclear power village to a dinner at the walled residence of US Ambassador to Japan Thomas Schieffer, a longtime friend and former business partner of President George W. Bush's.

Schieffer was eager to take the measure of a rising politician who opposed Bush's plan for wider use of plutonium-based nuclear fuels around the globe under a program known as the Global Nuclear Energy Partnership that envisioned a large role for the Rokkasho plant.



Liberal Democratic Party lawmaker Taro Kono is a skeptic about the Rokkasho plant and says a vast array of new reactors fueled by its plutonium faced huge technical challenges and posed a major proliferation risk. Pictured: Kono in June 2011. (Reuters/Toru Hanai)

Kono was not just a scrappy and ambitious young politician: He is the heir to a fourth-generation political dynasty, the son of the longest-serving speaker of the parliament's lower house in postwar history, an influential figure who is less outspoken but also has an independent streak. Taro Kono himself, who sometimes campaigns in colorful suspenders, is popular within Kanagawa prefecture, part of the greater Tokyo area, where the residents gave him 186,770 votes in 2005. Kono says that was the second-highest total in Japan's electoral history.

But his antinuclear efforts had gotten little traction elsewhere in Japan. And so, while seated in the small dining room of the residence where Douglas MacArthur met Emperor Hirohito in 1945, Kono attempted to sketch out the institutional reasons why Japan's bureaucrats and its utilities remained wedded to what he considered an outdated nuclear policy. A confidential embassy summary of the unusual conversation, full of criticism by Kono of his country's policies, was published by Wikileaks in 2011.

Kono said junior officials in the government, who saw plutonium fuels as a costly technological dead end, were trapped by policies they had inherited from more senior lawmakers whom Japanese culture did not permit them to challenge. He complained that under Japanese parliamentary customs, he

could not hire or fire committee staff but often had to rely on bureaucrats loaned from government agencies, all with a vested interest in promoting nuclear power. Any questions he asked were quickly passed back to those agencies.

Kono said it would be cheaper for Japan to "buy a uranium mountain in Australia" than to build breeder reactors and fuel them with plutonium produced at Rokkasho. He further told his hosts that the industry dominated the national conversation over power not only through its heavy advertising but by squelching any public criticism. Electric companies, he said without providing details, had forced a television station to short-circuit an interview with him by threatening to withdraw their advertising.

At the end of the evening, Kono recalls, Schieffer told him, "What you are saying is totally different from what all the others say." In his recent interview with the Center for Public Integrity, Kono said Schieffer's appraisal did not surprise him. Most of Kono's contemporaries have long regarded him as an eccentric or someone oddly allied with the tiny, vehemently antinuclear Communist Party here.

A DESIRE FOR THE ATOM

Japan's appetite for nuclear power seems quixotic for a nation devastated by its dark underside: the plutonium- and uranium-fueled weapons developed by American scientists. But one lesson its leaders took from the explosions over Nagasaki and Hiroshima was that they should master the technology that defeated them.

"I saw the mushroom cloud from my naval operation base in Takamatsu," a young sailor named Yasuhiro Nakasone recalled in his autobiography. Nakasone, who would become Japan's top science official and then its prime minister from 1982 to 1987, said he concluded that if Japan didn't use the atom for peaceful purposes, it would "forever be a fourth-rate nation."

That impulse was nurtured, carefully and secretly, by Washington. A 1954 cable to the director of the CIA, declassified only eight years ago, called for an "atomic peace mission" to Japan by US nuclear scientists and reactor-company officials to overcome prevailing antinuclear sentiment and help "revive the hopes of the deflation-oppressed Japanese in reconstructing their economy."

To carry out what the cable described as "an enlightenment propaganda program," the agency in particular enlisted the assistance of Matsutaro Shoriki, a former head of the notorious Tokyo police commission in the 1920s who had gone on to become a prominent publisher and broadcaster. The *Yomiuri Shimbun*, his newspaper, enthusiastically promoted nuclear power, and Shoriki himself helped found Japan's Atomic Industrial Forum, a tight alliance of companies and utilities. He died in 1969.

Beginning in 1966, Japan started building about one reactor a year. From the start, however, Japan planned to use uranium-fueled light-water reactors, the technology in predominant use around the globe, only until it had created a new energy system based on advanced, breeder reactors, so named because they can both consume and produce plutonium in what in principle could be an endless cycle, almost like perpetual-motion machines.

Uranium was initially, and mistakenly, thought to be rare. And breeders, initially predicted to be less costly than conventional reactors, have proven expensive to build, difficult to operate, and hard to secure, provoking France, Britain, and the United States to cut back or close their breeder programs several decades ago.

As a young man, Kono read in his manga comic books that breeder reactors were ideal for Japan because they could provide the country with energy for thousands of years "without having to burn oil," he wrote in his recent book on the Fukushima disaster. The major Japanese utilities all supported this claim and helped spread that word through advertising expenditures that totaled $27.6 billion over the past four decades, according to a 2013 investigation by the *Asahi Shimbun* newspaper, the Center for Public Integrity's partner in this examination of Rokkasho.

Construction of the Rokkasho plant began in 1993 and was initially supposed to be finished by 1997, but technical setbacks and construction problems forced a delay of nearly two decades. Paul Dickman, a senior policy fellow at Argonne National Laboratory in Illinois, the center of US breeder reactor research, said Rokkasho is "a great facility." But he also said it was a "construction project that's gone out of control" because Japan chose to modify an existing French design for such plants rather than simply copy it.

A DISSENTING VIEW IS SUPPRESSED

Throughout Rokkasho's construction, the Japanese Ministry of Economy, Trade, and Industry (METI) has been a bastion of pronuclear boosterism. But four officials in its economic and industrial policy bureau dared to challenge orthodoxy in 2004, when they prepared a 26-page PowerPoint presentation titled "The Unstoppable Nuclear Fuel Cycle" that called

the planned plutonium-based nuclear program outdated and its promoters corrupt.

The presentation, obtained by the Center for Public Integrity, said nuclear policymaking was controlled by "those involved with and interested in the nuclear power industry." It noted that four of the Atomic Energy Commission's five members had a professional or financial stake in the industry, presaging a widespread criticism of the organization in the aftermath of the Fukushima disaster.

The presentation also predicted that building, operating, and decommissioning the Rokkasho plant would cost almost $190 billion and warned that the practicality of building special reactors to burn the fuel it would make "has yet to be proven." In a rush to embrace plutonium recycling, it said, Japan's political leaders had "ignored the lack of conclusive research" and failed to acknowledge technical criticisms.

Although the authors urged that their report be published to encourage a public debate, it was instead suppressed, and they were all swiftly purged from the policy bureau, according to a source with direct information about METI's response. The *Mainichi Shimbun* newspaper finally disclosed the report's existence in 2012.

The Atomic Energy Commission, meanwhile, disregarded the policy bureau's advice and approved initial testing of the Rokkasho plant in 2006, which contaminated its pipes and equipment with highly radioactive dust, solvents, and other wastes. That ended any hopes of simply mothballing the plant. Any future decommissioning will take decades and cost $16 billion, according to commission estimates.

Members of the Liberal Democratic Party, which has ruled Japan since 1955 except for a year in the 1990s and for a three-year period ending in 2012, have been rewarded for their pronuclear stance with campaign donations from the ten giant electrical utilities that control around 96 percent of the nation's power supply.

The largest of these, the Tokyo Electric Power Company, or TEPCO, formally ended its direct corporate donations in 1974. But it systematically encouraged "voluntary" donations by company executives and managers to a fund-raising entity created by the ruling party, according to a 2011 investigation by *Asahi*. At least 448 TEPCO executives donated roughly $777,000 in total to the entity between 1995 and 2009, according to documents obtained by *Asahi* and shared with the Center for Public Integrity.

Roughly 60 percent of TEPCO's executives participated, a rate similar to that at other utilities. Together, they funded $2.5 million of the party's expenses, based on today's exchange rates. A TEPCO spokesman told Asahi that the donations were "based on the judgment of the individual

Japanese officials spent more than two decades and $22 billion building a factory to create plutonium-based nuclear-reactor fuel. Pictured: Nuclear reprocessing facilities in Rokkasho town, Aomori prefecture, Japan, in May 2011. (Reuters/Kyodo)

and the company is not involved. We do not encourage such donations."

But TEPCO executives, in interviews with *Asahi* reporters, said the company repeatedly stipulated how much they should donate—roughly $3,900 for top executives, $3,300 for executive vice presidents, and $1,700 for managing directors—the newspaper said. Kono alleged contributions such as these had purchased the loyalty of the ruling party and officials in the localities that hosted nuclear power plants.

HEAVEN-SENT OFFICIALS

TEPCO's influence has also been enhanced by its enthusiastic participation in revolving-door employment practices similar to those involving bureaucrats and companies in Washington, DC.

A METI report in 2011, prepared at the insistence of nuclear opponents in Japan's tiny Communist Party, said, for example, that between 1960 and 2011, TEPCO hired 68 high-level government officials. From 1980 to late 2011, the report said, four former top-level bureaucrats from METI's own Agency for Natural Resources and Energy became vice presidents at other electric utilities. The practice is known here by the amusing term *amakudari*, for appointees who "descended from heaven."

TEPCO officials also regularly move into key regulatory positions, part of a migration known as *ama-agari*, or "ascent to heaven" that has involved dozens of top utility officials. More than 100 such utility executives between 2001 and 2011 were able to keep drawing an industry paycheck while also working part time for the government, a practice that is legal here, according to a former member of the Japanese Diet Lower House Economy and Industry Committee, who spoke on background. An official working in the nuclear regulation authority's research division, in an interview, said on condition of anonymity that the *ama-agari* system is "like having cops and thieves working in the same police station."

Perhaps the most significant instance of *ama-agari* was the Liberal Democratic Party's appointment in 1998 of Tokio Kano, a longtime TEPCO executive, as chairman of the parliamentary committee that oversees METI and as the parliamentary secretary of science and technology. Both are posts crucial to the nuclear energy industry, and Kano used them to advance legislation enabling plutonium-based fuel to be burned in some standard reactors, not just breeders. He also pushed through a law requiring that all spent nuclear fuel be sent to Rokkasho or similar Japanese plants.

Taro Kono, the industry critic, charged that Kano "acted like the secretary general of whatever committee had anything to do with energy and electricity." Kono says that when he himself raised objections to nuclear policies during committee meetings, Kano would say, "Well, there's a strange voice in this room, but we kind of got unanimous consent" and then proceed.

When Kano retired from the parliament in 2011, he returned to TEPCO, where he had kept an office throughout his work writing legislation, as a special adviser.

Kano declined the Center for Public Integrity's request for an interview. But he told *Asahi* in 2011 he remained convinced that nuclear power was sensible. "Reactors were built because local residents strongly desired them, and it's a fact they generated employment and income," he said. "Some researchers say that low-dose radiation is good for your health. It's a persuasive argument."

Kano separately told *The New York Times* that year it was "disgusting" that his critics considered him a TEPCO "errand boy" merely because he had the business community's support.

FUNDS AND WASTE CEMENT ROKKASHO'S ROLE

The Aomori region where the Rokkasho plant is located, with a windswept coastline and harsh climate, ranks near the bottom of the nation's 47 prefectures, or statelets, in per capita income. "You can't grow much," says Taro Kono, the antinuclear activist lawmaker, who said he understands the plant's local appeal. "It's a tough place to live."

In the 1980s, the central government tried and failed to stimulate Aomori's economy with sugar beet farming and a tank farm for petroleum reserves, both of which faltered. So the nuclear plant's construction, which started in 1993, turned out to be a vital source of jobs, taxes, and even tourism, contributing around 88 percent of the village's total tax revenue in 2012, according to Aomori prefecture officials. A Japanese study last year said it had boosted per capita income levels by 62 percent.

Moreover, to smooth the way for the plant, the central government pays the village, which has a population of just 12,000, $25.9 million in grants yearly under a special nuclear-subsidy program created in Tokyo to promote the siting of nuclear energy facilities all over the country. The grants have amounted to more than $2,300 annually for every man, woman, and child in the village, according to prefecture officials. The village's chamber of commerce has

reported that roughly 70 percent of the businesses there are now involved with or dependent upon the nuclear industry.

Of course, the downside of the program for local citizens is that Rokkasho has become a storage site for 3,000 tons of highly radioactive spent fuel from commercial power plants, waiting to be processed into new plutonium. To win the right to do this, Japan's electric power monopolies 16 years ago pledged that the vast bulk of that spent fuel would be recycled as fuel, or it would be sent back.

But doing so would swamp spent-fuel pools at reactor sites that are already close to capacity, Japanese officials say, and could doom the Abe government's plans to reopen many of Japan's 50 surviving reactors.

Kono says renegotiating this agreement, which many politicians regard as sacrosanct, is the single biggest challenge to unraveling the plans of the nuclear power village.

"A TACIT DETERRENT"

After the Fukushima disaster, some of Kono's political adversaries embraced another argument in favor of the country's reactors and the Rokkasho plant that may seem surprising to some in the West: Operating these facilities sends a useful signal to would-be aggressors that Japan could quickly develop nuclear arms.

"There's a pronuclear-power-plant argument that we need to keep the nuclear reactor running so that we can pretend that we may have a nuclear weapon one day," Kono said during the late-night interview in his apartment house.

Shigeru Ishiba, a former defense minister who was Kono's rival for a ruling party leadership post in 2009 and is now its general secretary, caused a stir in October 2011 when he told *Sapio,* a right-wing magazine, that Japan's commercial nuclear reactors "would allow us to produce a nuclear warhead in a short amount of time." He added: "It's a tacit deterrent."

Japan has a pacifist constitution and a 47-year-old policy of ruling out the production, possession, or introduction of nuclear weapons on Japanese soil. It has signed and ratified the Nuclear Non-Proliferation Treaty and is a leading advocate of nuclear arms control.

Moreover, all of Japan's existing plutonium stockpile is under International Atomic Energy Agency safeguards, while its uranium, a linchpin of any effort to restart the country's civilian reactors, is largely imported.

These large challenges would have to be overcome for Japan to embark on a weapons program, according to Jacques E.C. Hymans at the University of Southern California and other scholars.

But a potential linkage between Rokkasho's product and nuclear weapons has hung over the program from the start. Kumao Kaneko, a 76-year-old former director of the Nuclear Energy Division of Japan's Ministry of Foreign Affairs, told the Center for Public Integrity that Tokyo pressed the Carter administration in 1977 for permission to start producing plutonium partly to ensure Japan had a weapons option.

"We concluded, Japan should not [build] nuclear armaments, while leaving the ability" to do so, said Kaneko, who retired from the ministry in 1982 to become a director of a Foreign Ministry-affiliated think tank.

That decision followed a formal, secret study of options for building nuclear arms, conducted in 1970 at the behest of Yasuhiro Nakasone, then Japan's defense minister. After two years of work, the group concluded "it would be possible in a legal sense to possess small-yield, tactical, purely defensive nuclear weapons without violating the constitution." But it decided that the effort would be costly, take years, and alienate Japan's neighbors. The country decided instead to stay under the US nuclear umbrella.

But many prominent Japanese officials still want the capability to produce nuclear arms if they were needed, according to Naoto Kan, who held a series of top government financial and strategic policy positions before becoming Japan's prime minister from 2010 to 2011, representing the Democratic Party of Japan, the Liberal Democratic Party's main rival. He said the desire for a nuclear-weapons capability is an important source of support for Japan's plutonium programs.

"Inside Japan, and that is not only within the Democratic Party of Japan, there are entities who wish to be able to maintain the ability to produce Japan's own plutonium," Kan said in an interview with the Center for Public Integrity in his parliamentary office. "They do not say it in public, but they wish to have the capability to create nuclear weapons in case of a threat."

It's a bold assertion, which independent figures, like Hiroaki Koide, a 63-year-old physicist at Kyoto University, say Japanese society usually does not tolerate. Koide, who is an assistant professor, says his own similar declarations have "not been good for my career."

"A GIANT WASTE OF MONEY"

The United States has long been concerned about potential development of a Japanese bomb, since Japan has the scientific skills, infrastructure, and, most important, the raw explosive material in the form of plutonium, hundreds of pounds of weapons-grade uranium, and the technology to produce more. Washington's worry is that such an arsenal would set off a regional arms race, complicating Japan's relations with its neighbors, some of whom would clamor for a similar capability.

In 2011, a massive earthquake and tsunami crippled the Fukushima Daiichi nuclear plant, causing a meltdown and a worldwide rethinking about the use of nuclear power. Pictured: Cranes at the devastated Fukushima plant. (IAEA Photo/Giovanni Verlini)

US policymakers have pursued a two-pronged path to blocking that development: Over the past four years, they have quietly brought a stream of Japanese diplomats and military officers into highly restricted US nuclear-weapons centers—including the Strategic Command headquarters in Nebraska, a Minuteman missile base in Montana, and a Trident submarine base outside Seattle—to remind them of the robustness of the US nuclear deterrent.

The United States also has gently urged Japan to cap or reduce the size of its plutonium stockpile. Its officials have encouraged Japan to reopen its closed reactors, in part so any newly created plutonium can be burned at the same rate it is being produced. They've also pressed Japan to give up, through repatriation to the United States, some of its existing plutonium stocks before production gets under way.

But the United States has not urged Japan to cancel its Rokkasho project, several current and former senior US and Japanese officials said. Authorities say one reason Washington has not offered that advice is that killing it, and all the future nuclear power plants linked to it, would increase Japan's dependence on traditional energy supplies and drive up their price on the world market, adversely impacting the US economy.

"Obviously what is done in the long term at Rokkasho is a decision for the Japanese people, the Japanese government to make," US Deputy Energy Secretary Daniel Poneman said during a July 2012 press conference in Tokyo. He added that "to the extent that there would be paths forward for Rokkasho" that could avoid increasing Japan's stockpile of plutonium, "that would be a good thing."

Poneman coupled this, however, with a public pitch for letting Japan use nuclear power to reduce carbon emissions, acknowledging that it is an important tool "for our friends and colleagues in Japan…who are very worried about climate change."

Jon Wolfsthal, who until two years ago served as a nonproliferation expert on the staff of Vice President Joe Biden and the White House National Security Council, said many in the administration believed that Japan wouldn't listen to pleas for canceling Rokkasho and that insisting on it would only fracture US relations with the country.

"They don't need the United States to tell them that Rokkasho is a giant waste of money and that there's no need for them to start marching down this road," Wolfsthal said. "But I'm not sure there's much the US could do about it."

Gary Samore, who directed nuclear-proliferation policy at the White House during President Barack Obama's first term, put it more bluntly: "If the Japanese government really decided, 'Yes, we're going to turn it on,' then the Obama administration would have to make a decision," he said. Either the United States will have to stick "with existing policy, which is not to object," or it will have to try to persuade Japan to abandon its plutonium-manufacturing plan.

Douglas Birch is a senior writer at the Center for Public Integrity. R. Jeffrey Smith is managing editor for national security at the center. Jake Adelstein has worked as an investigative journalist in Tokyo since 1993.

Toshihiro Okuyama and Yumi Nakayama, staff writers for the Japanese newspaper Asahi Shimbun, *contributed reporting for this article, which was first published in March.*

A street in New Delhi, India with crisscrossing power lines shows one of the dilemmas facing the Indian government in its struggle to provide reliable electricity. (Stanley Foundation/Amy Bakke)

Calibrating India's Climate-Change Response

By Samir Saran

India and other developing countries have consistently emphasized the notion of equity in the climate-change debate, advocating a "common but differentiated responsibility"—the principle that all states are obligated to address global environmental degradation, but not equally so.

This approach, however, is fast reaching its structural limitation since a number of countries, including some in the G-77 and the Alliance of Small Island States, are indulging Western lobbies that seek to dilute it and have already hinted at accepting a compromise.

Without the full support of developing countries including China, which is clearly distancing itself from the G-77 narrative, India will shortly find itself isolated without enough political weight to continue pushing for the common-but-differentiated approach. It has to rethink its equity-centric narrative without risking being politically outmaneuvered in multilateral discussions.

The narrative will need to be both progressive and inclusive, with a focus on accommodating fundamental realities in the implementation framework of the United Nations Framework Convention on Climate Change (UNFCCC), such as the fast rates of urbanization in the developing world, which will inevitably lead to changes in consumption and production patterns.

India should adopt a fresh approach to better align its domestic and multilateral commitments before 2015, when a large part of the world negotiates a global response to climate change under the auspices of the UNFCCC. Careful calibration by India's new government, which was elected in

May 2014, requires a series of actions: the articulation of a viable normative framework within which to place its climate-change response, the provision of modern commercial energy, enabling efficiency gains in large companies through market mechanisms, and investment in adaptation.

LOW-HANGING FRUIT

Despite a sustained thrust for energy access by previous Indian governments, elaborate planning has unraveled through poor implementation. Around 300 million Indians still do not have access to electricity, and millions more merely have notional access. While the electrification of a number of new areas has proceeded, the quality of electricity—essentially the number of hours in a day that grid power is available—remains highly variable. Moreover, the new government has to enable an energy transition not just to cater to the nominal needs of so-called light-bulb electrification, but also to enhance industrial competitiveness. For this, it will need to relentlessly pursue all viable energy options.

Although India's energy basket is coal dominated, India does not produce enough of the material to sustain domestic consumption, and even if its development can be accelerated, domestic coal consumption will peak in a couple of decades. In the years ahead, coal imports will add a new degree of fragility to India's fiscal stability. Even as the government renews attempts to overhaul the coal sector, development of natural gas supply chains—new port infrastructure for liquefied gas as well as pipelines connected to massive gas fields in nearby regions such as West and Central Asia—offers an unparalleled opportunity to scale up power generation. Additionally, unlocking domestic gas potential will also need some bold political leadership as it involves creating market-based pricing mechanisms to attract domestic and foreign investment. Indeed, gas has the potential to become India's bridge fuel until other alternative energy sources can be mainstreamed.

While gas presents an opportunity for the medium term, reaping the low-hanging fruit must be an immediate priority of the new government. Creating the right market conditions can enable efficiency gains in large companies. Simply through demand-side management, energy consumption in the industrial sector can see efficiency improvements of up to 25 percent. Moreover, greater operational efficiency has virtually unlimited potential. Substantial energy savings are possible if financial-incentive mechanisms that employ market forces and reward such efficiency gains are promoted. Templates for such financial instruments already exist, such as the Bombay Stock Exchange's GREENEX index, which tracks energy-efficiency performance of listed stocks. There is great equity in ensuring that the big corporations in India achieve energy and resource efficiency levels consistent with global best practices. It will also bolster India's global position as it seeks equity while engaging with the richer and more-developed countries.

Perhaps the most critical area for India's response to climate change must be adaptation. It needs to invest in actions against the imminent threats posed by climate change irrespective of how the global discourse progresses. Investments must be made through innovative channels, using a mixture of capacity-building programs, awareness campaigns, traditional solutions, and new technologies. A good example of an appropriate adaptation response would be to look at areas such as the financial engineering of insurance products to protect farmers from erratic weather patterns.

TOWARD 2015

It is already clear that the new government is likely to rely on sustained economic growth as the primary instrument for responding and adapting to climate change. This, of course, has its own set of implications for India's emissions, which are likely to increase before stabilizing in the long term. The twin objective for the government in New Delhi must be to peak India's emissions as quickly as possible and to keep the peaking emissions as low as possible.

Therefore, at home, India will largely need to focus on rapidly building up generation capacity, using efficient coal-mining and combustion processes, exploiting opportunities that natural gas offers, and investing in green technologies and efficiency gains. At the global level, India must ensure that the 2015 negotiations do not impede its ability to offer a better life to its people or make the cost of the provision of lifeline services too steep. Both agendas must be pursued simultaneously.

Samir Saran is a senior fellow and vice president at the Observer Research Foundation. He has diverse experience in the Indian private sector and was actively engaged with regulators and policymakers during the 1990s as India undertook economic reforms. Saran held various senior positions at Reliance Industries, India's largest business conglomerate. An electrical engineer by training, he has a master's degree from the London School of Economics and Political Science and has been a fellow at the University of Cambridge.

New Horizons

For years the Stanley Foundation has hosted Investigation U., an experiential camp for young people, on a theme that lends itself to global connections.

This year's campers (pictured) were challenged to go beyond their comfort zones, to think about the world beyond Muscatine, Iowa, make new friends, and have fun.

(Stanley Foundation/Amy Bakke)

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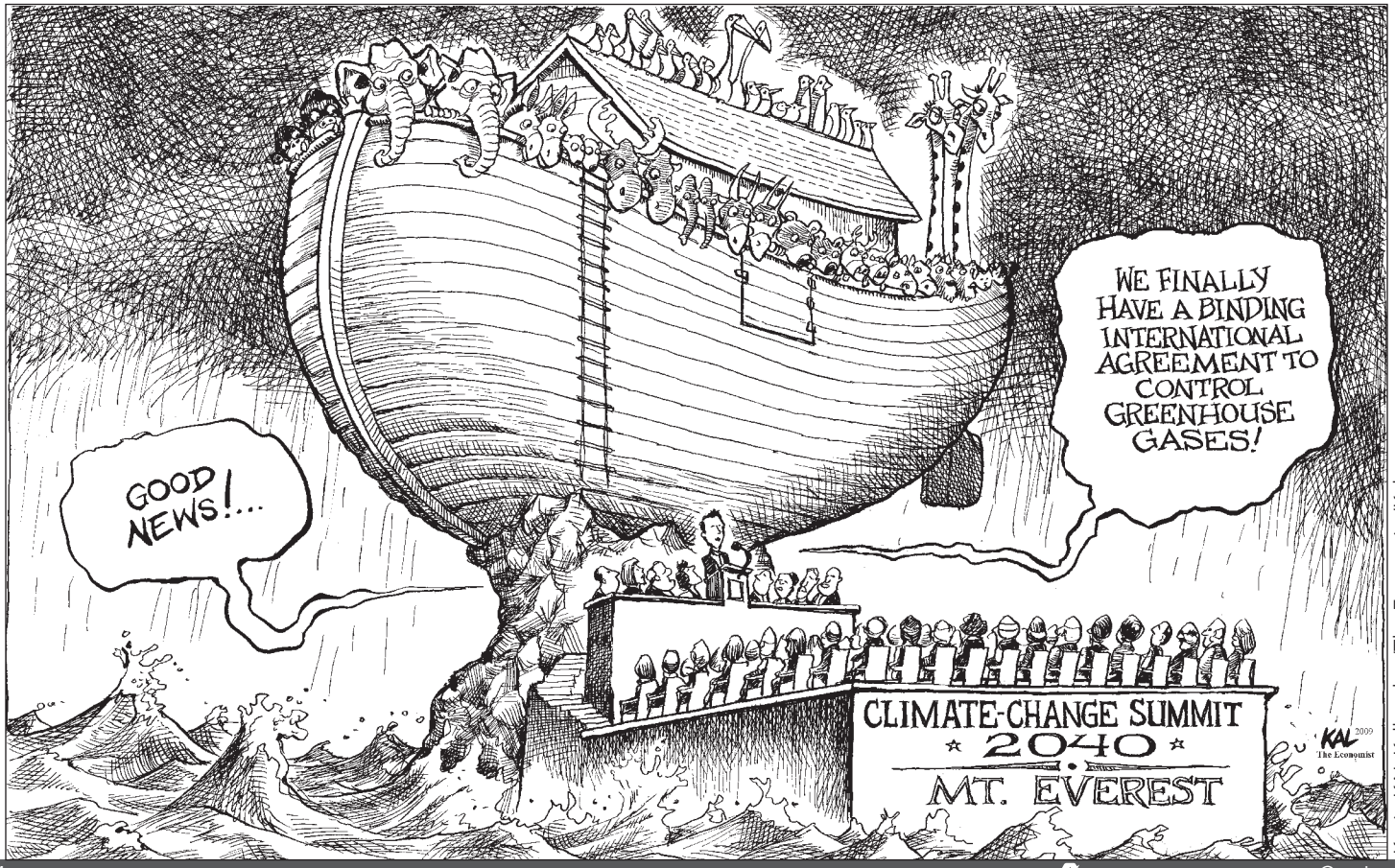

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