

How Russia Wins the Climate Crisis



JEWISH AUTONOMOUS REGION, RUSSIA. A soybean farm in early November. As the planet continues to warm, vast new stretches of Russia will become suitable for agriculture.

How Russia Wins the Climate Crisis Climate change and its enormous human migrations will transform agriculture and remake the world order — and no country stands to gain more than Russia.

By Abrahm Lustgarten | Photographs by Sergey Ponomarev

It was only November, but the chill already cut to the bone in the small village of Dimitrovo, which sits just 35 miles north of the Chinese border in a remote part of eastern Russia's Jewish Autonomous Region. Behind a row of sagging cabins and decades-old farm equipment, flat fields ran into the brambly branches of a leafless forest

before fading into the oblivion of a dreary squall. Several villagers walked the single-lane dirt road, their shoulders rounded against the cold, their ghostly footprints marking the dry white snow.

A few miles down the road, a rusting old John Deere combine growled on through the flurries, its blade churning through dead-brown stalks of soybeans. The tractor lurched to a halt, and a good-humored man named Dima climbed down from the cockpit. Dima, an entrepreneur who farms nearly 6,500 acres of these fields, was born in the Liaoning Province of northeastern China — his birth name is Xin Jie — one of a wave of Chinese to migrate north in pursuit of opportunity in recent years. After Dima’s mostly Chinese laborers returned home this year amid the Covid-19 pandemic, he has been forced to do much of the work himself. Bundled against the wind in a camouflage parka, he bent to pick a handful of slender pods from the ground, opening one to reveal a glimpse at Russia’s future.

A great transformation is underway in the eastern half of Russia. For centuries the vast majority of the land has been impossible to farm; only the southernmost stretches along the Chinese and Mongolian borders, including around Dimitrovo, have been temperate enough to offer workable soil. But as the climate has begun to warm, the land — and the prospect for cultivating it — has begun to improve. Twenty years ago, Dima says, the spring thaw came in May, but now the ground is bare by April; rainstorms now come stronger and wetter. Across Eastern Russia, wild forests, swamps and grasslands are slowly being transformed into orderly grids of soybeans, corn and wheat. It’s a process that is likely to accelerate: Russia hopes to seize on the warming temperatures and longer growing seasons brought by climate change to refashion itself as one of the planet’s largest producers of food.

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Around the world, climate change is becoming an epochal crisis, a nightmare of drought, desertification, flooding and unbearable heat, threatening to make vast regions less habitable and [drive the greatest migration of refugees in history](#). But for a few nations, climate change will present an unparalleled opportunity, as the planet's coldest regions become more temperate. There is plenty of reason to think that those places will also receive an extraordinary influx of people displaced from the hottest parts of the world as the climate warms. Human migration, historically, has been driven by the pursuit of prosperity even more so than it has by environmental strife. With climate change, prosperity and habitability — haven and economic opportunity — will soon become one and the same.

And no country may be better positioned to capitalize on climate change than Russia. Russia has the largest land mass by far of any northern nation. It is positioned farther north than all of its South Asian neighbors, which collectively are home to the largest global population fending off displacement from rising seas, drought and an overheating climate. Like Canada, Russia is rich in resources and land, with room to grow. Its crop production is expected to be boosted by warming temperatures over the coming decades even as farm yields in the United States, Europe and India are all forecast to decrease. And whether by accident or cunning strategy or, most likely, some combination of the two, the steps its leaders have steadily taken — planting flags in the Arctic and propping up domestic grain production among them — have increasingly positioned Russia to regain its superpower mantle in a warmer world.

JEWISH AUTONOMOUS REGION. A Chinese entrepreneur and farmer named Dima on his land.

For thousands of years, warming temperatures and optimal climate

have tracked closely with human productivity and development. After the last ice age, [human colonization of Greenland surged](#) with a period of warming only to sharply contract again during a period of abrupt cooling. More recently, researchers have correlated a quickening economic pulse in Iceland with years that had above-average temperatures, just as suffocating heat waves in the global South have tempered growth. There is an optimum climate for human productivity — average annual temperatures between 52 and 59 degrees Fahrenheit, [according to a recent study](#) in the Proceedings of the National Academy of Sciences — and much of the planet's far north is headed straight toward it.

Marshall Burke, the deputy director of the Center for Food Security and the Environment at Stanford University, has spent the better part of a decade studying how climate change will alter global economies, mostly focusing on the economic damage that could be wreaked by storms and heat waves and withering crops. [A 2015 paper he co-wrote in the journal Nature](#) made the geographic implications clear: Draw a line around the planet at the latitude of the northern borders of the United States and China, and just about every place south, across five continents, stands to lose out. Productivity, Burke found, peaks at about 55 degrees average temperature and then drops as the climate warms. He projects that by 2100, the national per capita income in the United States might be a third less than it would be in a nonwarming world; India's would be nearly 92 percent less; and China's future growth would be cut short by nearly half. The mirror image, meanwhile, tells a different story: Incredible growth could await those places soon to enter their prime. Canada, Scandinavia, Iceland and Russia each could see as much as fivefold bursts in their per capita gross domestic products by the end of the century so long as they have enough people to power their economies at that level.

For two years The New York Times and ProPublica have been reporting

on the [great global climate migration that is already underway](#). By 2070, more than three billion people may find themselves living outside the optimum climate for human life, causing tens of millions of migrants to press northward into the United States and Europe. (Most migrants do move north, where there is the greatest land mass and economic opportunity.) [The U.S. itself, the reporting showed](#), is likely to undergo its own vast demographic transformation as heat, drought and rising sea levels displace millions of Americans. In this final installment of our three-part series, the focus is on who benefits — looking at where the planet's masses will most likely end their journey in the pursuit of a stable climate. The optimal niche for human life will eventually move beyond the U.S. and Europe, toward the pole, and people will move with it.

BLAGOVESHCHENSK, RUSSIA. The Chinese city of Heihe can be seen just across the Amur River.

This could present an extraordinary opportunity for the world's northernmost nations — but only if they figure out how to stem their own population decline while accommodating at least some of a monumental population push at their borders. Take, for example, Canada: It is flush with land as well as timber, oil, gas and hydropower, and it has access to 20 percent of the world's fresh water. It has a stable, incorrupt democracy. And as the climate warms, Canada will move into the ecological sweet spot for civilization, benefiting from new Arctic transportation routes as well as an expanded capacity for farming. But there are only 38 million people in Canada, and Canadians are dying at a faster rate than they are being born. [Burke's research suggests](#) climate change will, by 2100, make Canadians two and a half times richer in terms of per capita G.D.P. than they would be if the planet were not warming. Canada may be able to seize that

opportunity only if it welcomes a lot more people.

This is why a group of Canadian business executives and academics have called on their government to turn the country's immigration system into a magnet for the planet's most talented people, hoping to [nearly triple Canada's population by 2100](#). The government has signaled some receptivity, increasing its immigration targets this year by 14 percent, in part reflecting a public sentiment that recognizes the importance of immigration to Canada's economy. Whether today's Canadians are truly ready to see migrants outnumber them two to one, though, remains to be seen.

The percentage by which Russia's wheat exports grew — to 44 million tons — in the four years following Putin's efforts to boost domestic food production in 2014:

100

The story is similar in the northern nations of Europe, where low birthrates and aging populations are out of step with the projected needs of agriculture and other industries. The countries of Western and Central Europe are among the world's largest growers of food, but native population declines force a heavy reliance at harvest time on migrant workers from places like Belarus and Romania. Norway and Sweden, too, could soon see a longer growing season and an increased harvest for their vegetable, fruit and berry crops as temperatures warm, but even now they can't harvest them without bringing in 15,000 to 30,000 migrant workers apiece, says Arne Bardalen of the Norwegian Institute of Bioeconomy Research, an expert on agriculture, food security and climate change.

Wrapped up in all of this — the farming, the migration, the warming — is a larger game of global influence. The issue of national security, for any of these countries as well as the United States, is inextricably

interlinked not only with immigration and border policies but also with food security. The race for prosperity in a climate-changed world is about achieving domestic self-reliance and also expanding geopolitical influence. But, as [John Kerry, who is President-elect Biden's incoming climate czar and a former U.S. secretary of state, put it to me recently,](#) both are dependent on how the accessibility or usability of territory — whether Arctic passages or thawing land — changes over time. The scarcer food and other resources become on a global level, the more the ability to produce food domestically becomes a tool of power. And the more nations can keep themselves afloat in this changing world, the more they stand to benefit just by watching others sink. “It could be very tense,” Kerry said, “a really, really messy process.” All of that makes the flow of people — whether you call them climate refugees or human capital — an inseverable part of the geopolitical power struggle driven by climate.

Russia has been explicit about its intention to come out ahead as the climate changes; in its national action plan on climate released in January, it called on the country to “use the advantages” of warming and listed Arctic shipping and extended growing seasons among things that would shower “additional benefits” on the nation. Russia may be no better positioned, politically speaking, to welcome large numbers of migrants than the U.S. or Canada; in fact, xenophobia is probably even more prevalent there. But how it tackles migration and its own demographic challenges will have tremendous consequences for the U.S. and the rest of the world. Russia has always wanted to populate its vast eastern lands, and the steady thawing there puts that long-sought goal within reach. Achieving it could significantly increase Russia’s prosperity and power in the process, through the opening of tens of millions of acres of land and a flourishing new agricultural economy.

EKATERINBURG, RUSSIA. Greenhouses lying dormant. Many Chinese laborers returned home this year amid the Covid-19 pandemic.

When Nadezhda Tchebakova, a leading Russian climate ecologist, moved to Siberia to research shifts in the region's climate, she followed in the footsteps of Gulag prisoners who had been banished to a land considered so inhospitable that the mere prospect of crossing it would prevent escape. In time she found a rapidly warming countryside of forests and inviting and temperate hills. In a [study she published last summer in the journal Environmental Research Letters](#), with the co-writers Elena Parfenova and Amber Soja, an American from NASA, Tchebakova estimated that by 2080, Russia's permafrost in the Asian part of the country will be reduced by more than half, at least in the active layer within six feet of the surface. One-third of its land mass would begin to switch from "absolute extreme" in its inhospitality to "fairly favorable" for civilization — and quite hospitable — she wrote, adopting the ecological terminology that the Russian government itself had invented to dictate how much hardship pay settlers banished to the region should receive. One of the coldest and most ecologically hostile places on the planet, she found, is fast becoming pleasantly livable.

Land's ability to support life boils down to basic biology. Organisms need enough light and heat to produce compounds that living creatures can consume in order to build a web of food. Permafrost stalls much of that process, but as it thaws, the cycle can begin. It's difficult to pinpoint just how much a single degree of warming opens up new lands in the north, but Tchebakova's research suggests that if humans continue to emit carbon dioxide at high rates, roughly half of Siberia — more than two million square miles — could become available for farming by 2080, and its capacity to support potential

climate migrants could jump ninefold in some places as a result. Not all thawed land will work; poor soils in many places won't be arable or will require loads of fertilizer to make things grow. And the change won't come overnight; soils in the process of thawing are an inherently unstable recipe for mayhem as roads and bridges crack and buildings collapse with the seasonal heaves and sinks of the earth. For a while, thawing regions may be nearly impassable. Eventually, though, the thaw will be complete and a new equilibrium reached that makes the land buildable and plantable again.

OUTSIDE VLADIVOSTOK, RUSSIA. Corn harvesters of the corporate farming company Rusagro.

The wait may not be especially long. This season, crops of winter wheat and canola seed outside Tchebakova's own city of Krasnoyarsk in southern Siberia produced twice the yields as the year before. "It's exactly what we predicted," she said, "except we predicted it by midcentury." As Vladimir Putin himself once glibly put it, a couple of degrees of warming might not be so bad: "We could spend less on fur coats, and the grain harvest would go up."

Agricultural dominance is just a small part of what Russia's climate optimists say the country has to look forward to. The steady melting of the Arctic sea ice will open a new shipping lane that would cut transit times from Southeast Asia to Europe by up to 40 percent and also shorten travel time to the United States, positioning Russia to profit by controlling this route between China and the West. With a few exceptions, St. Petersburg among them, Russia's largest cities and most important military bases are also far less vulnerable to inundation from sea-level rise than those of, say, the United States, which has its largest cities on the water and will inevitably divert trillions of dollars in coming decades to fortify or relocate strategic assets. Even the

savings in energy that will come from warming temperatures amounts to a mild economic stimulus.

Amount Russia's agricultural exports have multiplied since 2000:

16x

But agriculture offers the key to one of the greatest resources of the new climate era — food — and in recent years Russia has already shown a new understanding of how to leverage its increasingly strong hand in agricultural exports. In 2010, when wildfires and drought conspired to ruin Russia's grain harvests, Putin banned the exporting of wheat in order to protect his own people, then watched as global wheat prices tripled. The world reeled in response. From Pakistan to Indonesia, poverty increased. High prices rocked delicate political balances in Syria, Morocco and Egypt, where about 40 percent of daily caloric intake is from bread. The shortages poured fuel on Arab Spring uprisings, which eventually pushed millions of migrants toward Europe, with destabilizing effect — a bonus for Russian interests. And much of this turmoil began with wheat. As Michael Werz, a senior fellow for climate migration and security at the Center for American Progress, says, "There's a reason people demonstrated with baguettes in Cairo."

When Europe and the United States imposed sanctions on Russia after the downing of a Malaysian passenger jet over Ukraine in 2014, Russia countered by imposing sanctions on European imports. It seemed self-punishing at first, but the move was meant to give Russia's own domestic food producers an opening and prod them to fill the supply gap. When Putin addressed his Federal Assembly the following December, he boldly proclaimed Russia would soon be "the largest world supplier" of healthful foods, referring to his goal of keeping Russian foods mostly G.M.O.-free. By 2018, Putin's sanctions had paid enormous dividends: Since 2015, Russia's wheat exports have jumped

100 percent, to about 44 million tons, surpassing those of the United States and Europe. Russia is now the largest wheat exporter in the world, responsible for nearly a quarter of the global market. Russia's agricultural exports have jumped sixteenfold since 2000 and by 2018 were worth nearly \$30 billion, all by relying largely on Russia's legacy growing regions in its south and west. In Africa, Putin told attendees of the Russia-Africa Economic Forum held in Sochi last fall, "We are now exporting more agricultural products than weapons."

In the decades to come, as Russia's grain and soy production rise as a result of climate change, its own food security will give it another wedge to drive into global geopolitics, should it wish to use it. Russia's agricultural dominance, says Rod Schoonover, the former director of environment and natural resources at the National Intelligence Council and a former senior State Department analyst under the Obama and Trump administrations, is "an emergent national security issue" that is "underappreciated as a geopolitical threat."

OUTSIDE BLAGOVESHCHENSK. The Zeya river in early November.

To American intelligence experts, two things have become clear: Certain parts of the world might one day use the effects of climate change as rungs on a ladder toward greater influence and prosperity. And the United States, despite its not-unfavorable position geographically, is more likely to lose than win — not least because so many of its leaders have failed to imagine the magnitude of the transformations to come.

For John Podesta, the profound geopolitical challenges posed by climate change first became clear in July 2008, not long before he took charge of President-elect Barack Obama's transition team. That month, he took part in a war game hosted by the Center for New

American Security, a Washington-based research group. The room was full of people who were, like him, awaiting their chance to re-enter influential positions in the American government. Around the table in a private conference room at the Newseum in Washington, were former U.S. military officials, a former E.P.A. administrator, advisers to Chinese intelligence officials, analysts from McKinsey and the Brookings Institution and at least one European diplomat. "Let me be very clear," Podesta told the gathering, in his assigned role as the United Nations secretary general. "Our time is running out."

The exercise was set in 2015, with the climate crisis becoming violently apparent. A Category 5 hurricane had struck Miami shortly after a cyclone killed 200,000 people in Bangladesh. The scenario was designed by a senior fellow at the Center for New American Security named Sharon Burke, who would later become an assistant U.S. secretary of defense; her game plan suggested that a wave of climate migrants would be driven from their homes, part of the climate-caused displacement of as many as a billion people by 2050. One significant question put to the group then was how the United States, Europe, China and India would respond to that enormous migration and whether they could agree on what obligations under international law nations should have to care for migrants.

It wasn't easy. None of the countries involved wanted to open the door to being obliged to take climate migrants in, Burke told me. The participants clashed over whether climate migrants could be called "refugees" at all, given the U.N.'s insistence on reserving that term for those persecuted or forced to flee. They wound up deciding the word should be applied only to victims of climate-driven disasters, not those suffering from slow-onset change like drought. In the end, the players were reluctant to face the migration challenges in depth — a worrisome sign that, in the real world, wealthy nations like the United States would be likely to cling to the status quo even as large-scale

humanitarian crises begin to unfold. "One of the insights we got was that migration was just an absolute no-go zone," Burke said. "I wasn't expecting that."

The game marked a turning point of sorts in how some U.S. officials viewed the security threats posed by climate change. In 2010, in what was a rare and early official assessment of climate risk, the U.S. Department of Defense's [Quadrennial Defense Review](#) warned that climate change "could have significant geopolitical impacts," contributing to poverty, starvation, drought and the spread of disease, all of which would "spur or exacerbate mass migration." By 2014, the [Defense Department had applied the term "threat multiplier"](#) to climate change, describing how it would make many of the security establishment's greatest nightmares even worse. By the time Podesta went to China in late 2014 to negotiate an emissions agreement — a diplomatic feat that laid the groundwork for the Paris climate accord — he had come to believe that it was climate-driven food scarcity that posed the dominant threat to global security and to American interests. He saw that scarcity, and the migration it would cause, as leading to a fundamental, perhaps dangerous shift in the geopolitical balance of the world. "We were just at the beginning of the imagining of how big the problem was," Podesta told me.

The number of countries globally, south of Canada and Russia and Scandinavia, that stand to benefit economically as the climate warms:

0

America's strategic challenges from climate change don't just revolve around food. Sea-level rise, for one, could displace 14 million Americans by 2050, even with modest warming, while in Russia fewer than two million people are at risk. American military installations around the world are also particularly vulnerable. According to a [2018 Defense Department analysis](#), about 1,700 of them might need to be

moved out of the way of flooding rivers and coastlines and of hurricanes. And the enduring reluctance in right-wing political circles to talk about sea-level rise and warming has hamstrung U.S. strategy and made it difficult for the country's leaders to see around the curve. If you take any factor out of your calculus, you create blind spots. One telling example: Russia has 34 icebreakers, and China, which is nowhere near the Arctic, has four; the United States has just two, one of which is nearly a half-century old. When it comes to climate, the defense establishment "has been more of a reactive than a proactive entity," said John Conger, a former deputy under secretary of defense and now the director of the Center for Climate and Security. "So emergencies and crises get more attention than opportunities and possibilities."

But in the long term, agriculture presents perhaps the most significant illustration of how a warming world might erode America's position. Right now the U.S. agricultural industry serves as a significant, if low-key, instrument of leverage in America's own foreign affairs. The U.S. provides roughly a third of soy traded globally, nearly 40 percent of corn and 13 percent of wheat. By recent count, American staple crops are shipped to 174 countries, and democratic influence and power comes with them, all by design. And yet climate data analyzed for this project suggest that [the U.S. farming industry is in danger](#). Crop yields from Texas north to Nebraska could fall by up to 90 percent by as soon as 2040 as the ideal growing region slips toward the Dakotas and the Canadian border. And unlike in Russia or Canada, that border hinders the U.S.'s ability to shift north along with the optimal conditions.

Marshall Burke projects that over the next 80 years, [per capita G.D.P. in the United States will drop by 36 percent](#) compared to what it would be in a nonwarming world, even as per capita G.D.P. in Russia will quadruple. [A recent study led by researchers at Columbia University](#) found that a disruption in U.S. agriculture would quickly propagate

throughout the world. After just four years of a Dust Bowl-like event — a time when some crop yields dropped by 60 percent — global wheat reserves would be cut by nearly a third, and U.S. reserves would be almost entirely gone. And as the livability and capacity of American land wanes, U.S. influence in the world may fade along with it.

OUTSIDE BLAGOVESHCHENSK. Fedor, Ksenia and Andrey Shvalov at their homestead. The family erected buildings and dug a well but found little infrastructure to connect to, and they lacked other support from the government.

The lyrics to Russia's modern anthem suggest that at least some of its leaders have anticipated this moment: "Wide spaces for dreams and for living are opened for us by the coming years." As if to fulfill that vision — and perhaps with the expectation of needing more land to execute his climate ambitions — Vladimir Putin declared in 2013 that the remaking of Russia's East "is our national priority for the entire 21st century," and that "the goals that have to be attained are unprecedented in their scope." In laying out that ambition, he surely had history in mind. There was the outpost Russia built at the Sea of Okhotsk in the 1700s; efforts to drive out Chinese settlers of the Qing dynasty in the 1800s; the founding of the Jewish Autonomous Region, which ultimately brought as many as 40,000 Yiddish-speaking Jews to the area around Birobidzhan, in 1934; and even the longstanding banishment of workers and prisoners alike to Siberia and the Far East under Stalin and afterward.

All these efforts at settlement, though, have been focused on resettlement — on moving Russia's own citizens eastward to exploit this new land of opportunity. The current plan invites any Russians willing to relocate themselves in Siberia and the Far East, including in the Birobidzhan area of the Jewish Autonomous Region, to buy properties at 2 percent interest. Russians willing to move there can

also apply for free plots of farmland. College and trade training can also be free.

And yet none of these efforts to encourage internal migration have had much of an impact. The government says that it has distributed nearly 150,000 acres to roughly 86,000 people, but only 14 percent of them did not already live in the region. Since 1991 the population of the states that have traditionally made up the Far Eastern Federal District has decreased by 25 percent; the decline has slowed, but it remains a drip in the wrong direction. The situation is considered so dire that the government has a bureau to address it, the Department of Human Capital. (The department rebuffed repeated requests for an interview.)

Andrey Shvalov's story helps to illustrate why. In 2016, Shvalov applied for land through the resettlement program, abandoning his life as a photographer to pioneer rural land in the Far East. He filled out an application online and was quickly granted five acres of woodland outside Blagoveshchensk, a small city on the Chinese border about 260 miles northwest of Dimitrovo. It was only after arriving there, with his wife and two young children, that he discovered all the challenges the program could not solve.

"My first problem was where to get water," he says. Shvalov watched YouTube videos to learn how to drill a well, erect a house and cut and dry his own firewood. First, he built a chicken house, and the family camped inside of it. Now, four years in, his wife keeps an apartment in town while Shvalov and the children sleep in a temporary hut as he builds the house. "In the city," he says, "we all thought about motivation and goals. Here, the main thing is what you will drink and eat." The biggest problem? There is no infrastructure to connect to and, despite official claims that the government is supporting the settlers, not enough government money to build it. Near Shvalov's place, the Amur district has been losing about 1,600 people each year;

Russia's national demographics department refers to it as a "donor" region. The Jewish Autonomous Region surrounding Dimitrovo is in similar decline. There is simply no one to do the work.

OUTSIDE BLAGOVESHCHENSK. Fedor Shvalov looking to see who has arrived.

It's no surprise, then, that the region has become increasingly dependent on what Anatoly Vishnevsky, director of the Institute of Demography at the National Research University in Moscow, has called "replacement migration" for labor. In fact Russia's own demographic statistics show the net population decline in its eastern regions in spite of small but steadily increasing foreign migration — not just the Chinese, North Koreans and Japanese who have made homes in the region but also migrants from the Caucasuses and Central Asian states and even some from India, Turkey and Afghanistan.

In late October I spoke on a video call with Sergei Karaganov, founder of Russia's Council on Foreign and Defense Policy and an influential adviser to Russian presidents, including Putin. Karaganov, who is normally pictured in suit and tie but who also describes himself as a hunter, sat in the pine-walled dining room of his dacha an hour and a half outside Moscow, where he was isolating to avoid Covid-19. Behind him an enormous bear skin was stretched out on the wall next to the bust of a six-point elk. Russia needs so much labor in the east, he told me, that it has even contemplated flying workers in from India: "We think about the lower hundreds of thousands."

There is an underlying sense, though, that sooner or later there will be more human capital available than Russia knows what to do with. Asian Russia sits atop a continent with the largest global population, including not just the Chinese but also nearly two billion South Asians — from the flooding Mekong Delta and Bangladesh to the sweltering

plains of India — many of whom will inevitably be pushing northward in search of space and resources as the climate gets hotter and sea levels continue to rise. Russia is “not willing to bring in too many Chinese,” Karaganov said. “But when it comes, it will come from there and Central Asia, the Caucasus. This is a problem, but it could be the greatest opportunity.”

BLAGOVESHCHENSK. Chinese towers seen across the Amur river.

In the near term, while Russia may prefer its migrants to come from Central Asia and other countries farther south, it’s the Chinese who seem most likely to come. They’ve already settled throughout Siberia and the Far East, sometimes through intermarriage with Russian citizens — which makes them eligible for land-disbursement benefits — or by leasing lands from Russians who received it under government giveaways. At one point, Russian news articles described more than 1.5 million Chinese living in southern Russian territories, though precise numbers don’t exist; some experts say the number is probably much lower. This year, many returned to China amid fears of the closure of the border because of the coronavirus. But most people, including Karaganov, expect they’ll be back, tantalizing Russians with prospects for growth while at the same time triggering the age-old racist tendencies that have clouded Russia’s efforts to assimilate outsiders of non-Russian descent.

When Dima first came from the city of Shenyang, at 26, adventurous migrants were chasing opportunities across the Russian frontier. He had taken a train to Khabarovsk, the largest city in the Russian East, and then continued west on rumors of free arable land. Quickly enough he found work on a collective near Dimitrovo and hustled produce to buyers along the railroad to make a living until, five years later, the

collective folded and most of the Russians moved away.

Dima saw it as an opportunity. The China he'd left was urban, crowded and poor, and this part of Russia was like the wild east, flush with subsidies, space and opportunity. His wife, a Russian citizen, qualified for a cheap loan: enough for farm equipment and 50 acres to grow soybeans and barley for feed. By 2020 Dima had tilled profits into more land until he was running two large combines over nearly 6,500 acres of soybeans and employing 15 mostly Chinese workers to do it. And throughout it all, he had begun to fit in. "My neighbors see me as Dima," he says, speaking Russian in a thick Chinese accent, "although I can't hide the fact I don't speak well."

The number of square miles of now-frozen land in Asian Russia that could become farmable by 2080:

2M

Dima says he is confident that, once the pandemic ends, more of his countrymen will be drawn to the region, probably with bigger investors and bigger companies. "You can't retreat," he says, noting that they've wagered too much money here. "They will come." These days, much of the Chinese money is in Vladivostok, a breezy and moneyed port city scattered over rolling hills on the shoreline of the Sea of Japan, about nine hours by jet from Moscow. It's through here that Chinese companies have begun channeling billions of dollars toward Russian land leases and farm operations, and from here that the farms are shipping thousands of tons of soybeans and corn and wheat south to Chinese cities. By video call from his office's modern glass-walled conference room at the Russian Far East Investment and Export Agency in Vladivostok, Absamat Dzhanboriev, the agency's agricultural investment director, describes a steep rise in agricultural production that can come only from large-scale corporate farming. In 2018 more than 900,000 tons of soybeans were exported from the

East. Soon, he says, the region will harvest two million tons of soybeans from 3.7 million acres of farmed land — an area roughly the size of Connecticut. And the more the land warms, the farther north the industry will be able to push, eventually doubling farmed land again, producing nearly six million tons or more each year.

Chinese money supports 14 percent of new farm development in the region, more than any other foreign source. Last year, for example, Chinese investors, including a state-owned company, used a Russian subsidiary to start developing 123,000 acres for soy and other crops in an area near Vladivostok and to build a soy-processing plant that would handle 240,000 tons a year. The deal makes the Chinese venture one of the largest private landholders in the Russian east; according to local news reports, it is likely to employ a number of Chinese workers, rely on Chinese technology and sell its products in China. In exchange, Russia says it will earn income tax (after a decade-long abatement) and that a Russian development bank also has a 20 percent stake in the project. (By law, Dzhanboriev said, such joint ventures are supposed to hire Russians to do at least 80 percent of the work.)

VLADIVOSTOK. A pig-raising operation owned by Rusagro.

For now, at least, these deals seem to be pushing the Chinese and Russian governments closer together. The groundwork was laid in May 2015, when Chinese President Xi Jinping agreed to form a \$2 billion agricultural fund for trade partnerships in Russia's east. Investments like these support loans and farming and the construction of badly needed roads and electrical lines in Russian villages like Dimitrovo, while also opening the literal back door — Russia's remote southeastern border — to China's colossal market, a market that Putin

has coveted. Since then the money has continued to flow, with nearly \$14 billion reportedly invested by 2017 across Russia's resource sectors and another \$10 billion pledged by Xi for cross-border infrastructure efforts. This year, the first major bridge linking the two countries across the Amur River was completed.

Given that China appears to siphon much of the profits and products from these ventures, it has not always been clear to Russians in the east that the deals are worth it. But analysts point out that the goals of the two countries — at least for the moment — are complementary. Russia gets long-term growth and the establishment of a durable industry in a region that it has failed to develop in the past and does not have the resources or the technology to do so now on its own. It also gets, according to [an analysis by Angela Stent for the Brookings Institution](#), China's "unequivocal support" for its programs and policies, something that has become invaluable following the sanctions imposed by the West after the Crimean invasion.

BLAGOVESHCHENSK REGION, RUSSIA. Horses grazing outside the Savchuk family farm. The family took land granted by the government.

Ultimately, it is the clumsy maneuvering of the United States that might prove most responsible for making Putin's eastern development agenda a success. American tariffs, imposed as part of the Trump administration's trade war with China, led to China's own retaliatory tariffs on U.S. soybeans, creating the largest catalyst for Chinese buyers to look north for new markets. According to the U.S. Congressional Research Service, China's total food and agricultural imports from Russia increased 61 percent in 2017 and 2018, yet another example of the U.S. failure to see the chessboard when it comes to the intricate geopolitical implications of climate change.

“The U.S. has made a few historic mistakes, and I don’t think they are able to repair them,” Karaganov told me. The first was what he characterized as the rejection of Russia’s bid some two decades earlier to strengthen ties with the West. “The second was helping to bring Russia and China together.” With China’s wealth paired to Russia’s resources, and the political trajectories and climate-related interests of the two countries more or less aligned, there is nothing short of a new world order at stake — an order, Brookings Institution analysts say, based not only on economic alignment but also on the two countries’ common commitment to supplanting Western hegemony.

Whether this great Eastern alliance can endure, though, remains an open question, in part because of the underlying and unresolved issue of human migration and the colonization of the Asian north. As strong as the China-Russian partnership appears to be — China has become Russia’s largest trading partner for oil, arms and more — it is an asymmetrical one. Russians continue to distrust Chinese intentions, particularly in the East. The boon in investment is accelerating Russia’s development goals but with trade-offs that stoke rising resentment and fear.

Two centuries ago much of the Russian Far East was a part of China. As recently as 1969, there were border clashes there. After the fall of the Soviet Union, fears of a Chinese invasion were rekindled. And while those fears have since softened, suspicions toward the Chinese linger, a mark of Russia’s famously xenophobic outlook on many non-Russian-speaking immigrants but also a vestige of its history with its southern neighbor. The fear of Chinese overrun in the East is a perennial one; it comes and goes throughout the years — and is sometimes overstated — but it never quite goes away.

The percentage by which shipping times from Southeast Asia to Europe might be reduced through a new Russia-controlled Arctic shipping

passageway as the climate warms:

40

And as climate change increasingly drives mass migration, the eventual pressure from the population to the south is quite real. Northeastern China, [a report from the U.S. National Intelligence Council warns](#), will face water shortages and droughts that could drive its population into Russia “in large numbers,” potentially unsettling the entire region. Chinese migrants might be pulled into the Russian Far East by economic opportunities today, the council stated, but by as soon as 2030 the dynamic could flip to one in which they will instead be pushed out of China for lack of basic resources.

And it won't just be from China. Water shortages and more frequent droughts across Central Asia and Mongolia and south as far as India could push large numbers of people north. [A 2015 study by Russian demographers published in The Mediterranean Journal of Social Sciences](#) looked at how unabated climate change would force the “resettlement of millions” of Vietnamese, many of whom might also come to Russia, as sea levels inundate the Mekong Delta by the end of this century.

If there is any lesson to be learned from the instability that has already been caused by climate-driven migration around the world, whether [drought-stricken Guatemalans](#) at the U.S. border or [Syrians pressing into Europe](#), it's that a strategy of accommodating migrants would almost certainly be more to Russia's benefit than one that attempts to keep them out. Accommodation, an abundance of migration research shows, stands a better chance of preserving Russia's own sovereignty while improving the stability of its surrounding regions; exclusion is likely to lead to endless conflict and chaos on its borders, which risks spilling across in destabilizing ways.

The fact is that the people of Asia have long ventured north — into Siberia, the Far East and beyond — as the climate has undergone cyclical change through the course of history. Around 3,000 years ago a [drought in central China drove Mongol herders](#) a thousand miles north into the steppes of Khakassia, in Siberia, where they remained raising horses and sheep for centuries. The likelihood of that process repeating as the climate warms is now inevitable, said Amber Soja, a scientist who has examined the migration of ancient civilizations in north Asia as a research fellow at the NASA Langley Research Center in Virginia. One way or another, she says, "people are going to move. Because people need to eat."

OUTSIDE VLADIVOSTOK. Rusagro corn harvesters.

This article, the third in a series on global climate migration, is a partnership between [ProPublica](#) and The New York Times Magazine, with support from the Pulitzer Center. Read [Part 1](#) and [Part 2](#).

In Russia, Ludmila Mekertycheva and Vadim Mekertychev contributed reporting for this article.

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