

Advancing Foundational Change

The Biden administration must tackle existential public health and environment threats with systemic change.

JAY FELDMAN AND TERRY SHISTAR, PHD

The Biden administration is faced with reversing decisions of agencies that violate the letter or spirit of laws that govern protection of health and the environment, while taking dramatic foundational steps to address existential ecological crises—climate crisis and biodiversity decline. Critical to successful strategic efforts is attention to land management practices that eliminate our reliance on petroleum-based pesticides and fertilizers and the widespread of adoption of an organic systems approach. Whether addressing agriculture or the management of parks, playing fields, rights-of-way, and residential areas, policies that allow continued reliance on synthetic toxic pesticides promote ecological imbalances that are at the heart of the escalating deterioration of ecosystems and life that depends on them.

The challenges that face us require holistic approaches to problems by addressing the

underlying problems, taking on their systemic nature. This means that a focus on individual chemical bans outside the context of changes to management practices and ecological compatible products sidesteps the solution and results in a continuation of the chemical treadmill. While the problems are severe, the good news is that the solutions are available and economically viable. Those opposing change typically have a vested economic interest in maintaining dependency on outmoded and unnecessary products from which they profit.

As the President assembles a leadership team in his administration, our focus is on the critical policies that are needed to protect affected communities, with particular attention to those who suffer disproportionate risk or are in vulnerable population groups. Implementing these policies will require an integrated approach across all agencies with a mandate to meaningful and foundational changes to our social, economic, and environmental norms.



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INTEGRATING AND LEADING AGENCIES WITH A STRATEGIC VISION

The “environment” is central to President Biden’s priorities: climate change, COVID-19, and the next pandemic, racial equity, and economic recovery. To solve these problems, EPA must articulate and regulate with an eye to the relationships among these and other environmental issues, with a clear vision of the changes needed to dramatically change our course, currently heading for ecological destruction.

The EPA Administrator must embrace environmentalism with a vision that adopts a dramatic transition away from hazardous chemicals and polluting practices at this perilous time.

An updated EPA must support holistic thinking, with an understanding of interrelationships in ecosystems. This requires an understanding, public education, and regulatory action on 1) the relationship between a healthy environment and a healthy economy; 2) disproportionate risk and environmental racism; 3) the importance of standing up to polluting industries; 4) the existential threats facing the country and the globe; 5) the failure of risk assessment and unrealistic risk mitigation measures that poison people and the environment, and destroy life; and 6) the need for meaningful results based on organic systems, rather than politically expedient compromises.

RELATIONSHIPS AMONG PRIORITIES AND THEIR RELATIONSHIP TO ENVIRONMENT

Environmental leadership at EPA must work hand-in-hand with economic decisions that affect sustainability—only sustainability can bring us solutions to the urgent issues of climate change, pandemics, and racial inequity. Solving problems for those at highest risk from toxic chemical-induced threats—air and water pollution, food contamination, worker exposure, and the climate crisis—provides protection for everyone. Leaving those who are vulnerable, have preexisting health conditions, or comorbidities, out of the calculation of safety, as done currently, has disproportionate impact on people of color. The data is clear that racial injustice is inextricably linked to the climate crisis, the disproportionate impact of the pandemic on black and brown essential workers, and an imbalanced economy that functions poorly in ensuring everyone an equitable share of United States’ wealth and promise. Currently, all environmental decisions are screened and controlled by the White House’s Office of Management and Budget, which fails to address the racial and economic disparities that are causing unimaginable harm in the interest of “economic health.” We cannot achieve sustainability until we change our relationship with the “environment”—that is, the total biosphere of the Earth. EPA must be empowered to challenge the following foundational problems.



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CLIMATE CHANGE

President Biden has prioritized climate change, having appointed John Kerry to the cabinet post of “Climate Envoy.” Climate change, however, is affected by, and affects, other environmental and health concerns. It is important that the Biden EPA work across agencies to ensure a coordinated approach—so that chemical industry production and use practices, individual and multiple chemicals’ effects, and background sensitivities associated with elevated risk factors can be addressed in the context of their interrelationships.

The leadership provided by this holistic analysis must prioritize the solutions as a replacement for polluting practices and widespread harm. For example, toxic pesticides that kill nontarget organisms—including pollinators, soil micro- and macrofauna, predators and parasites of pests, and plants that support the agroecosystem—which are unnecessary to achieve productive, cost competitive, and profitable food production, can be eliminated in organic agriculture. EPA leadership can and must question the reasonableness of the conventional wisdom that toxic chemical dependency (including fossil fuel-based toxic pesticides and synthetic fertilizers) is acceptable, given the viability of nontoxic, organic, regenerative practices. This can be achieved under the current risk standards of most environmental laws with the appropriate leadership that takes seriously the existential threats that we face and the viability of alternatives that eliminate toxic practices. We have entered a period that requires toxic chemical and fossil fuel elimination, driven by communities across the country that understand the threats and are forcing a change in their community practices. EPA leadership must listen to local leaders and urgently change our current path.



THE WHITE HOUSE

COVID-19

EPA has a number of responsibilities that affect the pandemic and the prevention of another future pandemic. Exposure to toxic chemicals—especially those affecting the respiratory, immune, and nervous systems—makes people more susceptible to the virus. EPA’s programs can recognize the threats to vulnerable population groups and tighten the reins on controlling how and when we use toxic chemicals—leading to a phase-out. In the case of disinfectants, EPA lists disinfectants that can be used to destroy the virus on surfaces, but has done so without providing information about the risks of using those disinfectants and the availability of safer materials.

RACIAL EQUITY

A blatant example of systemic racism is imbedded in risk assessments in environmental regulation. In deciding on “acceptable” risks, exposure assessments inevitably discount the impact on workers, people of color, and those with pre-existing health conditions or comorbidities. For example, EPA routinely calculates worker exposure separately from other exposures. In applying aggregate exposure assessments of pesticides, EPA does not include worker exposure. Risk assessments do not include exposures to multiple chemicals—and such exposures routinely affect fenceline communities near chemical plants, farmworkers, landscapers, and factory workers.

WORK WITH OTHER AGENCIES

Achieving the goals expressed by President Biden will require cooperation among agencies. While the Climate Envoy position is an important step forward, EPA must step up to fulfill its mandate and ensure our future and the future of following generations.

The EPA administrator must regulate and understand that it is critically and urgently important to:

- Collaborate with the U.S. Department of Agriculture (USDA) in effectuating the wide transition to organic agriculture, which eliminates the use of toxic pesticides and synthetic fertilizers. Coordinate ecological management of forests with USDA to help in fighting climate change.
- Work with the Department of the Interior (DOI) to facilitate the protection of natural areas, including National Wildlife Refuges, which serve as a carbon sink and assist in combating climate change. DOI can also assist in protecting indigenous cultures that have much wisdom to offer for protecting natural systems.
- Work with the Department of Energy to ensure that our pursuit of energy sources supports life and protects our biosphere.
- Intersect with the Food and Drug Administration (FDA) on pharmaceuticals and other toxicants in waterways, Department of Health and Human Services on public health protections, the Fish and Wildlife Service on endangered species, U.S. Geological Survey in monitoring water quality, and the National Oceanic and Atmospheric Administration in climate and marine issues.

In order to solve the problems we are facing, we must stop treating EPA and other federal agencies as silos that work on discrete and isolated problems. The body of science calls for us to act on the confluence of issues that converge to threaten human life and sustainability of the planet. EPA must lead with a holistic vision for a sustainable society and a livable future.

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MESSAGE TO PRESIDENT BIDEN AND VICE-PRESIDENT HARRIS

The U.S. Environmental Protection Agency must address cross-cutting environmental issues, with a clear vision that protects against escalating ecological destruction and ensures that our economy supports the protection of ecosystems that sustain life. Treating environmental problems as isolated threats associated with individual chemicals or practices moves us from one problem to the next with ongoing deterioration that has become insurmountable.

The past four years have taught us that EPA cannot treat the chemical industry and others in polluting industries as its clients. Instead, leadership is required to move industry to address priority issues in the aggregate and address the interconnections associated with climate, health, and biodiversity decline.

Holistic Thinking. EPA must lead with holistic thinking and an understanding of interrelationships in ecosystems—with an understanding of the relationship between a healthy environment and a healthy economy; disproportionate risk and environmental racism; the importance of standing up to polluting industries; the existential threats facing the country and the globe; the failure of risk assessment and unrealistic risk mitigation measures that poison people and the environment; and the need for meaningful results rather than politically expedient compromises.

Issue Interrelationships. The environment is central to your interrelated priorities of climate change, COVID-19, racial equity, and economic recovery. Climate change increases susceptibility to COVID-19, disproportionately affects low-income and people of color, and poses a major threat to the economy. COVID-19 affects climate emergency response, black and brown people, and the economy. Racial injustice is inextricably linked to the climate crisis, the disproportionate impact of the pandemic on essential workers, and an imbalanced economy.

Climate. Your priority of seriously confronting the climate crisis is affected by and affects other environmental and health concerns. It is important to work across agencies to ensure a coordinated approach—both because they are important in their own right and because of their relationship to climate change. Cooperation among agencies is needed to promote organic agriculture, conserve natural areas and marine ecosystems, preserve indigenous cultures, and monitor resources.

EPA must prioritize solutions to replace practices causing widespread harm. Toxic pesticides that kill nontarget organisms—including pollinators, soil micro- and macro-fauna, predators and parasites of pests, and plants that support the agroecosystem—which are unnecessary for productive, cost-competitive, and profitable food production, can be eliminated in organic agriculture. EPA leadership must thus question the reasonableness of conventional wisdom accepting toxic chemical dependency. EPA must listen to communities across the country that understand the threats and are changing their practices.

COVID-19 and Future Pandemics. Exposure to toxic chemicals—especially those affecting the respiratory, immune, and nervous systems—increases susceptibility to COVID-19. EPA lists disinfectants that can be used to destroy the virus on surfaces without information about their risks and the availability of safer materials. The agency's decisions on antimicrobial and antibiotic use in agriculture will affect a future pandemic associated with bacterial resistance.

Environmental Racism. Risk assessments incorporate a blatant example of systemic racism. In deciding on “acceptable” risks, exposure assessments inevitably discount the impact on workers, people of color, and others at risk. For example, EPA does not include workers in calculating aggregate exposure to pesticides. Risk assessments do not include exposures to multiple chemicals—which routinely affect fenceline communities, farmworkers, landscapers, and factory workers.



PESTICIDE REGULATION IN A HOLISTIC CONTEXT

While the federal pesticide law, the *Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)*, is among the weakest of environmental, public health laws, EPA has a large degree of discretionary authority to reorient the agency in taking on the major issues that threaten a sustainable future.

CHALLENGE SO-CALLED “BENEFITS” OF PESTICIDES

FIFRA requires EPA to weigh risks against benefits when registering pesticides. Claimed “benefits” for toxic pesticides should be judged in comparison to organic production, which is able to produce every type of food and feed. Organic sales now exceed \$55 billion per year, and USDA finds that organic producers in the U.S. produced \$9.9 billion worth of organic food on 5.5 million acres in 2019. EPA assumes benefits of pesticides, rather than measuring them, and does not take into account the development of pest resistance and secondary costs associated with ecological decline (lost pollination), and cost of treating chemical-induced illness. The cost-competitive success of organic food production and nonagricultural land management practices make the case that toxic pesticides lack benefits. Even when EPA determines “acceptable” risks (rates of disease and death) with health-based standards, it falsely assumes the need for toxic chemicals in setting those allowable rates of harm.

To take on benefits successfully the agency should determine under current law the “reasonableness” of risk. If there are less toxic means of achieving the pest management goals, then the hazards associated with the pesticide are not reasonable. The agency should conduct benefits analyses. Agency analyses are filled with uncertainties related to the risks to a range of people with different exposure hazards. In this context, the agency should take a precautionary approach that treats unknown and untested effects as unacceptable.

PROTECT POLLINATORS

Agriculture relies on insect pollinators to facilitate fertilization and maintain annual crop yield. Globally, the production of crops dependent on pollinators is worth between \$253 and \$577 billion yearly. Yet, many agricultural pesticides are killing pollinators outright, making them more susceptible to parasites and disease, and destroying their habitat. Insects in the environment contribute to ecological balance and ecosystem services that have financial benefit to the agricultural sector. The severe decline in pollinator populations raises the alarm of insect decline, or the devastating effect of the “insect apocalypse,” and the collapse of ecosystems, including birds and wildlife.



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PROTECT WORKERS

Farmworkers are at greatest risk from pesticide exposure in the human population. A blatant example of systemic racism is imbedded in risk assessments in environmental regulation. In deciding on “acceptable” risks, exposure assessments inevitably discount the impact workers, people of color, and those with preexisting health conditions or comorbidities. For example, EPA routinely calculates worker exposure separately from other exposures. In applying aggregate exposure assessments of pesticides, EPA does not include worker exposure. Risk assessments do not include exposures to multiple chemicals—and such exposures routinely occur to fenceline communities, farmworkers, landscapers, and factory workers. Allowing elevated rates of harm for the population that is now called “essential workers” (farmworkers in food production and landscapers managing public land) belies a greater public understanding of the importance of adopting regulatory standards of safety that treat all people equally.

PROTECT BIODIVERSITY

Roughly a quarter of the global insect population has been wiped out since 1990, according to research published in the journal *Science*. Monarchs are near extinction and beekeepers continue to experience declines that are putting them out of business. We continue to lose mayflies, the foundation of so many food chains, and fireflies, the foundation of so many childhood summer memories, for reasons that can be prevented with leadership in regulating pesticides. It is likely that the declines we are seeing in many bird species are closely linked to insect declines. Recent research finds that three billion birds, or 29% of bird abundance, has been lost since the 1970s. Pesticides cause biodiversity loss in aquatic ecosystems as well. Amphibians are also particularly at risk. A biological evaluation by EPA in 2020 finds that the widely used weed killer glyphosate/Roundup threatens nearly every animal and plant species on the U.S. list of threatened and endangered species—93% of them, in fact. This, on top of its cancer-causing properties, supports urgent action to ban the herbicide along with others that destroy habitat and replace them with organic practices and organic compatible products.



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ELIMINATE ENDOCRINE DISRUPTING PESTICIDES

Despite the Congressional mandate in the *Food Quality Protection Act of 1996* (FQPA), EPA is not acting on endocrine disruptors linked to infertility and other reproductive disorders, diabetes, cardiovascular disease, obesity, and early puberty, as well as attention deficit hyperactivity disorder (ADHD), Parkinson's, Alzheimer's, and childhood and adult cancers. In 1998, EPA established a program to screen and test pesticides and other widespread chemical substances for endocrine disrupting effects. Despite operating for 21 years, the Endocrine Disruptor Screening Program (EDSP) has made little progress in reviewing and regulating endocrine disrupting pesticides. Now the program has stalled entirely.

To ensure appropriate follow-through, Congress gave EPA a timeline to: develop a peer-reviewed screening and testing plan with public input not later than two years after enactment (August 1998); implement screening and testing not later than three years after enactment (August 1999); and report to Congress on the findings of the screening and recommendations for additional testing and actions not later than four years after enactment (August 2000).

Despite these deadlines, EPA is stalled and ignoring its responsibility. It started a screening program (Tier 1) and reported results in 2009. According to EPA, Tier 1 Screening (which looks at high exposure chemicals) is not sufficient to implicate a chemical as an endocrine disrupting chemical. It is instead a step to define which chemicals must undergo Tier 2 testing—the only stage that can influence regulatory decision-making. It is unclear when or how EPA will move forward with Tier 2 testing, and how, if at all, any Tier 2 findings will be used to inform actual regulation.

PROTECT CHILDREN

The target of action by which many pesticides kill insects is the nervous system. It is not surprising, then, that pesticides also target the nervous system in humans. They are particularly hazardous to children, who take in greater amounts of pesticides (relative to their body weight) than adults, and whose developing organ systems are typically more sensitive to toxic exposures.

The body of evidence in the scientific literature shows that pesticide exposure can adversely affect a child's neurological, respiratory, immune, and endocrine system, even at low exposure levels. Several pesticide families, such as synthetic pyrethroids, organophosphates, and carbamates, are also known to cause or exacerbate respiratory symptoms like asthma. The American Academy of Pediatrics wrote, "Epidemiologic evidence demonstrates associations between early life exposure to pesticides and pediatric cancers, decreased cognitive function, and behavioral problems."

And yet the Trump EPA refused to ban the extremely neurotoxic insecticide chlorpyrifos—an action that was begun during the waning days of the Obama administration. Chlorpyrifos is a dangerous neurotoxicant that has dire impacts on children, making EPA's action to allow its continued use a failure of both its protective mission and ethics. Further, it is an environmental justice failure, given that risks of exposure fall disproportionately on low-income African American and Latino families, including farmworker families, who are at the greatest risk of harm. The ban on chlorpyrifos will be an important step in eliminating neurotoxic pesticides and using the opportunity to advance organic land management.



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MESSAGE TO EPA ADMINISTRATOR MICHAEL REGAN

Overhauling the pesticide regulatory system at EPA is the cornerstone of any effort to adopt crosscutting systemic change to protect against environmental racism, ecological collapse, the climate crisis, and economic stability. Here is what is needed immediately:

Challenge so-called “benefits” of pesticides. The *Federal Insecticide, Fungicide, and Rodenticide Act* (FIFRA) requires EPA to weigh risks against benefits when registering pesticides. The standard for claimed “benefits” for toxic pesticides should be measured against organic production. USDA finds that organic producers in the U.S. produced \$9.9 billion worth of organic food in 2019. EPA assumes benefits, rather than measuring them, and does not take into account externalities, including the cost of pest resistance, secondary costs associated with ecosystem services, and cost of treating chemical-induced illness.

Protect pollinators. Agriculture relies on insect pollinators for fertilization and annual crop productivity. Globally, the production of crops dependent on pollinators is worth between \$253 and \$577 billion yearly. Yet, many agricultural pesticides kill pollinators outright, make them more susceptible to parasites and disease, and destroy their habitat.

Protect workers. Farmworkers are at greatest human risk from pesticide exposure. Systemic racism is imbedded in environmental risk assessments. In deciding on “acceptable” risks, exposure assessments inevitably discount the impact workers, people of color, and those with preexisting health conditions or comorbidities. EPA routinely calculates worker exposure separately from other exposures. In applying aggregate exposure assessments of pesticides, EPA excludes worker exposure. Risk assessments do not include exposures to multiple chemicals—that routinely occur to fenceline communities, farmworkers, landscapers, and factory workers.

Protect biodiversity. Roughly a quarter of the global insect population has been wiped out since 1990. It is likely that declines in many bird species are closely linked to insect declines. Recent research finds that three billion birds, or 29% of bird abundance, have been lost since the 1970s. Pesticides cause biodiversity loss in aquatic ecosystems as well. EPA finds that the widely used weed killer glyphosate/Roundup threatens 93% of animal and plant species on the U.S. list of threatened and endangered species. This is symptomatic of land management systems that are reliant on toxic pesticides, including herbicides.

Eliminate endocrine disrupting pesticides. Despite the Congressional mandate in the *Food Quality Protection Act of 1996* (FQPA), EPA is not acting on endocrine disruptors linked to infertility and other reproductive disorders, diabetes, cardiovascular disease, obesity, and early puberty, as well as attention deficit hyperactivity disorder (ADHD), Parkinson’s, Alzheimer’s, and childhood and adult cancers.

Protect children. The target of action by which many pesticides kill is the nervous system. It is not surprising, then that pesticides also target the nervous system in humans. They are particularly hazardous to children, who take in greater amounts of pesticides (relative to their body weight) than adults, and whose developing organ systems are typically more sensitive to toxic exposures. And yet, EPA has refused to complete the ban of the extremely neurotoxic insecticide chlorpyrifos and other neurotoxic compounds that was begun during the Obama administration. Chlorpyrifos is a dangerous, proven neurotoxicant that has dire impacts on children, making EPA’s action to allow its continued use a failure of its mission and an environmental justice issue, since the hazards fall disproportionately on low-income African American and Latino families.

Under your leadership, a revitalized EPA must take our nation in a new direction—one that requires the agency to think holistically, shift away from petroleum-based pesticides, and synthetic fertilizers, and embrace solutions that protect ecosystems that sustain all life.



PRIORITIZE ORGANIC AS THE SOLUTION

As we focus on leadership questions at USDA, issues of foundational change come into sharp focus, relating to sustainable land management, distribution of resources and access to land, food security, protection of human and ecosystem health, and climate. Ultimately, the administration must set a new tone, rejecting past performance and positions, and establish a framework that forges a new direction for agricultural and rural development programs and policies.

President Biden has talked about a framework for policy with key elements that are at the intersection of agriculture and the protection of health and the environment: (i) science-based decision-making, (ii) systemic change to solve societal problems, (iii) phase out of fossil fuel, and (iv) fight against environmental racism with disproportionate risk imposed on people of color.

To genuinely adopt these elements in a policy framework will require a dramatic change in previous agency positions. The President's *Plan for Rural America* includes meaningful assistance for family farms and other small and medium-sized farms, building a clean energy future, advancing racial equity in rural America, expanding protections for farmworkers, ensuring adequate health care in rural areas, and conserving public lands. These priorities cannot be achieved with chemical-intensive farming practices that rely on petroleum-based pesticides, fertilizers, and bioengineered crops, or continued support for corporate industrial agriculture that undermines the health of people and communities. Therefore,

a systemic shift to organic agriculture will be required to meet these priorities.

Organic agriculture practices combat the climate crisis by:

- **Reducing emissions of nitrogen oxides.** Excessive use of nitrogen fertilizers in chemical-intensive agriculture is driving global nitrous oxide (N₂O) emissions higher, putting the world at greater risk of a climate catastrophe, and failure to adequately address nitrous oxide emissions has the potential to impede the ability for the world to keep warming below the 2°C target established under the Paris Climate Agreement, necessitating further cuts in other greenhouse gasses.
- **Sequestering carbon.** Regenerative organic systems, which eliminate toxic, petroleum-based pesticides that kill microbial life in the soil, sequester significant amounts of carbon from the atmosphere into on-farm soil carbon and could sequester more than 100% of current annual CO₂ emissions. (See *Regenerative Organic Agriculture and Climate Change*, Rodale Institute [2015].)
- **Preserving natural lands and biodiversity.** Natural forests are more effective than tree plantations in sequestering carbon. Preserving natural land increases biodiversity, which also reduces dependence on petroleum-based pesticides. Organic farms are required to “comprehensively conserve biodiversity by maintaining or improving all



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natural resources, including soil, water, wetlands, woodlands, and wildlife, as required by §205.200 of the regulations and per the §205.2 definition of Natural resources of the operation.”

There is no racial justice without environmental justice, and this is particularly true in agriculture. In chemical-intensive agriculture, farmworkers are exposed to toxic agricultural chemicals. Farmworkers are predominately people of color, and dangers to them are discounted in the risk assessments used in the registration of pesticides. Materials used in organic agriculture *must not endanger humans or the environment, but non-organic foods—even those with low residues of pesticides on the end product—endanger workers and the environment.*

Organic food offers greater health benefits in certain key areas, such as total antioxidant capacity, total polyphenols, and two key flavonoids, quercetin and kaempferol—all of which are nutritionally significant. Organic dairy products contain significantly higher beneficial fatty acids, antioxidants, and vitamins. Organic food production prohibits toxic pesticide use, as distinguished from chemical-intensive agriculture and reduces existing levels of pesticides detected in children and adults. Drinking organic milk can eliminate exposure to pesticide, antibiotic, and synthetic growth hormone residues in conventional dairy products.

Organic farming is good for the economy because it is more resilient and buffered from economic risk, compared

to chemical-intensive agriculture. Greater crop diversity, as required by organic standards, contributes to greater agricultural employment.

USDA has a track record of weakening organic review procedures by the National Organic Standards Board (NOSB), having ignored several NOSB recommendations, and advanced “coexistence” with the expansion of genetically engineered (GE) crops that are responsible for genetic drift, polluting non-GE and organic crops. The expansion of GE crops led to an explosion of glyphosate (Roundup) use, widespread food contamination, as well as the growth of dicamba and 2,4-D, which resulted in vast crop damage and contamination from drift throughout the Midwest. This growth in GE crops has led to insect and weed resistance to pesticides, increased reliance on toxic, petroleum-based chemicals, destruction of wildlife habitat, and economic harm to farmers. Meanwhile, USDA was in the forefront of the successful effort to squelch clear disclosure of GE ingredients in food products.

USDA has been criticized for its undermining of racial justice by the National Black Food and Justice Alliance (NBFJA), National Black Farmers Association, USDA Coalition of Minority Employees, and others. The NBFJA points to the following history:

- Routine denial of loans to Black farmers that were easily obtained by white farmers and decreased the overall dollars loaned to Black farmers;

- Failure to take discrimination complaints seriously;
- Foreclosure of Black farmers who had pending discrimination complaints;
- Failure to adequately compensate Black farmers with valid claims;
- Wrongfully forcing out Shirley Sherrod, the former head of USDA rural development in Georgia and a highly respected civil rights leader;
- Prioritizing the profits of the poultry industry over the health and safety of working people and families; and
- Collusion in the distortion of data regarding race, farming, and land.

USDA must distance itself from its historical relationship with conventional, chemical-intensive agribusiness and the dependency on industrial and factory farming operations that it pushes. Embracing family farmers and organic production practices is essential to confronting the climate crisis and ensuring a sustainable future.

MESSAGE TO SECRETARY OF AGRICULTURE TOM VILSACK

It is critical that USDA open a dialogue on the issues critical to the future health of our agricultural system, the people who labor in it, and the environment in which it operates.

President Biden has set an important framework in which to make transformational changes in confronting existential crises that directly intersect with agriculture. Key elements of the framework that intersect with the protection of health and the environment (including agriculture) are: (i) science-based decision-making, (ii) systemic change to solve societal problems, (iii) phaseout of fossil fuel, and (iv) fight against environmental racism with disproportionate risk imposed on people of color.

Within this framework, the overall policy priorities of the President include addressing the climate crisis, racial equity, COVID-19, and economic recovery. His “Plan for Rural America” includes helping family farms and other small and medium-sized farms, building a clean energy future, advancing racial equity in rural America, expanding protections for farmworkers, ensuring adequate health care in rural areas, and conserving public lands. These priorities cannot be achieved with chemical-intensive farming practices that rely on petroleum-based pesticides, fertilizers, and bioengineered crops, or continued support for corporate industrial agriculture that undermines the health of people and communities. Therefore, a systemic shift to organic agriculture will be required to meet these priorities by:

- **Reducing emissions of nitrogen oxides.** Failure to adequately address nitrous oxide emissions may impede the ability for the world to keep warming below the 2°C target established under the Paris Climate Agreement.
- **Sequestering carbon.** Regenerative organic systems sequester significant amounts of carbon from the atmosphere into soil carbon.
- **Preserving natural lands and biodiversity.** Natural forests help sequester carbon and reduce dependence on petroleum-based pesticides.

You are certainly aware that there have been points of disagreements with policy positions, relating to action and inaction on critical issues. There is significant concern about the weakening of organic review authority of the National Organic Standards Board (NOSB), ignoring NOSB recommendations to strengthen organic integrity, while promoting “coexistence” with the expansion of genetically engineered (GE) crops that are responsible for genetic drift, polluting non-GE and organic crops. The expansion of herbicide-tolerant GE crops has led to an explosion of glyphosate (Roundup) use, widespread food contamination, as well as the growth of alternative weed killers dicamba and 2,4-D, whose use resulted in vast crop damage and contamination from drift throughout the Midwest. This growth in GE crops has led to insect and weed resistance to pesticides, increased reliance on toxic, petroleum-based chemicals, destruction of wildlife habitat, and economic harm to farmers.

This is the mandate of the Biden administration: Think big and take on structural problems with systemic changes. In this context, USDA is needed to urgently address the existential threats to health, environment, racial equity, and economic security associated with current agricultural policy and practices.



URGENT NEED FOR A JOINT INTERAGENCY STRATEGY TO COMBAT ANTIBIOTIC-RESISTANT BACTERIA

Now that we have learned what a pandemic looks and feels like, with the astounding levels of infection, hospitalization, and death from COVID-19, we must take serious steps to prevent another pandemic on the horizon—this one tied to bacterial resistance to antibiotics. The use of antibiotics in agriculture is contributing to a “looming potential pandemic” worldwide, resulting from a “rise in multidrug-resistant bacterial infections that are undetected, underdiagnosed, and increasingly untreatable, [which] threatens the health of people in the USA and globally,” according *The Lancet*, a prestigious medical journal, in September, 2020. The World Health Organization has declared that “AMR [antimicrobial resistance] is one of the ten top global public health threats facing humanity.” The primary contributors to AMR identified in the scientific literature are uses in agriculture and overuse in medicine.

MANAGEMENT PRACTICES LEAD TO UNCONTROLLED INFECTIONS

Antibiotics are used across chemical-intensive agriculture, both crop and livestock production. In chemical-intensive, or conventional, dairy and livestock production, they are used widely as additives to animal feed to ward off any potential infections and to promote unnaturally rapid growth (the latter of which translates to higher profits), rather than being used to treat bacterial infections (although that does happen and products from treated animals can go to market with residues). Both of these objectives compensate for the overcrowded and unsanitary conditions of concentrated animal feeding

operations (CAFOs). Use of antibiotics is prohibited in all certified organic production. Although the standards of the National Organic Program require that sick animals be treated, meat and other products from such animals cannot be sold with the Certified Organic label. Organic has banned antibiotics in crop production, while its uses continue in conventional fruit production, some vegetables, and citrus (grapefruits, oranges and tangerines).

An FDA (Food and Drug Administration) ban on the use of antibiotics as growth promoters in livestock, which went into effect on January 1, 2017, was confounded later that year by USDA’s (U.S. Department of Agriculture) rejection of World Health Organization guidance on limiting antibiotic use in animal feed. USDA asserted that treating, controlling, and preventing “disease under veterinary supervision constitutes “appropriate use”—undercutting the ban on antibiotics for growth promotion because, when used in feed for disease prevention, antibiotics also promote growth.

In addition to direct ingestion of antibiotic residues, resistant bacteria move from farms to families, through the environment to the human population by “horizontal gene transfer.” Beyond the threat from antibiotic-resistant infections, the ability of antibiotics to disturb or kill the gut microbiota in humans can lead to or exacerbate autoimmune and other 21st century diseases, including diabetes, obesity, food allergies, heart disease, cancer, asthma, autism, irritable bowel syndrome, multiple sclerosis, rheumatoid arthritis, celiac disease, inflammatory bowel disease, and more.

The authors of *The Lancet* article indicate that the AMR



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phenomenon can exacerbate COVID-19 risks. They observe that, across five countries, COVID-19 diagnoses are associated with bacterial infections (with 3.5% diagnosed concurrently and 14.3% post-COVID-19). The prevalence is higher in patients who require intensive care. They note that, “72% of COVID-19 patients received antibiotics even when not clinically indicated, which can promote AMR.” The authors note: “AMR might worsen under COVID-19 due to the overuse of antibiotics in humans, continuing misuse in agriculture, and the dearth of antimicrobials in the development pipeline.”

In 2015, the White House released a comprehensive action plan to curtail antibiotic misuse and accelerate new antimicrobials and vaccines—the National Action Plan for Combating Antibiotic-Resistant Bacteria. Implementation has been

uneven and, at times, contradictory. The 2017 FDA ban on use of antibiotics as growth promoters was undercut that same year when USDA, as indicated above, rejected the World Health Organization’s guidance to limit antibiotic use in livestock feed. At the same time, there have been unprecedented nationwide budget cuts to hospital-based AMR programs. Ignoring the looming pandemic, in 2019, EPA approved an expansion of medically important antibiotics such as streptomycin and oxytetracycline as pesticides to increase crop yields, and the USDA removed federal oversight of meat inspection at pork processing plants.

Failing to confront AMR undermines decades of advances in medicine and public health. The COVID-19 pandemic should serve as a wake-up call that progress on the national action plan is critical for public health.

MESSAGE TO PRESIDENT BIDEN AND VICE-PRESIDENT HARRIS

Urgent action is needed to prevent the next pandemic related to bacterial resistance. Now that we have learned what a pandemic looks and feels like with the astounding levels of infection, hospitalization, and death from COVID-19, we must take serious steps to prevent another pandemic on the horizon.

The use of antibiotics in agriculture is contributing to a “looming potential pandemic” worldwide, resulting from a “rise in multidrug-resistant bacterial infections that are undetected, underdiagnosed, and increasingly untreatable, [which] threatens the health of people in the USA and globally,” according *The Lancet*, a prestigious medical journal, in September, 2020. The World Health Organization (WHO) has declared that “AMR [antimicrobial resistance] is one of the top 10 global public health threats facing humanity.” The primary contributors to AMR identified in the scientific literature are uses in agriculture and overuse in medicine.

The misuse of antibiotics in agriculture includes antibiotics used to control certain bacterial diseases in plant agriculture (especially oxytetracycline and streptomycin). While crop uses are important contributors to breeding bacterial resistance, they are small compared to their uses in livestock production. Antibiotics are used largely as additives to animal feed to ward off any potential infections and to promote unnaturally rapid growth, rather than being used to treat bacterial infections (although that does happen and products from treated animals can go to market with residues). Both of these objectives compensate for the overcrowded and unsanitary conditions of concentrated animal feeding operations (CAFOs), which scientists believe are contributing to the next pandemic.

Although the standards of the National Organic Program require that sick animals be treated, meat and other products from such animals cannot be sold with the Certified Organic label. Organic has banned antibiotics in crop production, while its uses continue in conventional fruit production, some vegetables, and citrus (grapefruits, oranges and tangerines).

In 2015, the White House released a comprehensive action plan to curtail antibiotic misuse and accelerate new antimicrobials and vaccines—the National Action Plan for Combating Antibiotic-Resistant Bacteria. Implementation has been uneven and, at times, contradictory. In 2017, the U.S. Food and Drug Administration (FDA) banned use of antibiotics as growth promoters in livestock, but the same year, the U.S. Department of Agriculture (USDA) rejected WHO’s guidance to limit antibiotic use in livestock feed. There have been unprecedented nationwide budget cuts to hospital-based AMR programs. In 2019, the U.S. Environmental Protection Agency approved expansion of medically important antibiotics such as streptomycin and oxytetracycline as pesticides to increase crop yields, and USDA removed federal oversight of meat inspection at pork processing plants. Failing to confront AMR undermines decades of advances in medicine and public health. The COVID-19 pandemic should serve as a wake-up call that progress on the national action plan is critical for public health.

Urgent action is needed to implement the *National Action Plan for Combating Antibiotic-Resistant Bacteria* through the coordination of federal agencies, including EPA, USDA, and FDA.