

ECOFEMINIST PERSPECTIVES

Earth Democracy: Beyond Dead Democracy and Killing Economies*

Vandana Shiva

I want to thank the University of Waterloo for inviting me for this lecture series. It is a pleasure to be back. It [southern Ontario] is the only place where I have stayed for a substantial period of time—three years for my doctoral work—outside India. It makes me nostalgic for my student days, the most stimulating time intellectually that I've had. I never really wanted to give up my reflections on quantum theory, but I felt a bit indulgent, just living for my own intellectual stimulation. So I started the kind of work I do today. I started a public interest organization for research, and later I started Navdanya, the movement that has grown to be India's biggest organic movement and seed savers' movement. I started these things because we went wrong in the way we defined democracy. Because democracy is defined as the one day when you go to vote, and you vote on the basis of "what are the options?" But there are fish in the oceans, and there are trees and the earthworms in the soil, and they count, too, for life on earth. But they were left out of the thinking on democracy.

So we have this deep and very artificial conflict between considerations of sustainability and considerations of economic "growth." It should never have happened. After all, the real live growth of the trees in the forest should have been counted. But if trees in the forest are growing they weren't "growing" economically. The day you chop them down, that's when "growth" happened. And as this illusion of wealth and growth took over more and more, we built systems where even the shallow democracy that is based on representative voting has been taken away from us. Democracy is supposed to be for rule of the people, by the people, for the people. But every citizen of every country just has to look back over the last two decades to see how increasingly the will of the people just doesn't matter anymore. If you don't want nuclear power plants, it doesn't matter. Our Prime Minister can go to Washington and sign a nuclear deal with the president of the U.S. If the American citizens and the U.K. citizens and the European citizens march in the streets and say "we don't want to go to war, we don't want to invade Iran," it doesn't matter. Knowing Canadians, having spent time here and still having some very dear friends, I know Canadians are definitely committed to environmental sustainability and definitely committed to global justice. But if you watch your negotiators in the climate negotiations, in the biodiversity negotiations, in the trade negotiations, are they representing your will? I don't think so. Something has happened. Democracy and governance went mutant. And they went mutant because globalization took over. And globalization didn't take over in a kind of natural organic growth. It's presented that way you know, "we lived in villages, then we lived in states, and now we live in a beautiful global world—it's all a village." It's not.

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Basically what happened was through the '80s, big giant corporations that had captured the domestic markets in rich countries wanted markets globally, and to get those markets they had to rewrite the rule of trade. The rewriting of the rules started with the Uruguay Round of the GATT [the General Agreement on Tariffs and Trade, which preceded the World Trade Organization]. And while we were busy living our lives and practicing our democracies, they were busy writing the treaties which were then called international treaties and were defined as being arrived at through multilateral negotiations. I know at least three of the treaties that are now part of the global governance system in the trade system: the WTO Agreement on Agriculture, the WTO Agreement on [Trade-Related Aspects of] Intellectual Property, [or TRIPS], and the WTO Agreement on [the Application of] Sanitary and Phytosanitary Measures.

In the case of the intellectual property agreement, the companies had grouped together in the 1970s. They formed an intellectual property committee. These were corporations from Europe, Japan, and North America. And they were across sectors. Walt Disney wanted royalties on Mickey Mouse whenever it was printed on a little t-shirt; Monsanto wanted monopolies on seed; Pfizer and the pharmaceutical industry wanted monopolies on medicine. And in the intellectual property committee, they drafted the agreement that is today called the intellectual property agreement of the WTO. It is called the "Trade-Related Intellectual Property" agreement, because intellectual property, first of all, doesn't exist. Before the Trade-Related Intellectual Property agreement, industrial property and design copyright were national systems, democratically defined.

Why do I say that "intellectual property" doesn't exist? Because you have very different criteria for protection of industrial invention and protection of cultural and creative invention. Copyright is given to songs and the writing of books. Patents used to be given only for manufacture—for a genuine invention with very strict criteria. It had to be novel, it had to have utility, and it had to be novel in a non-obvious way, which is defined in law as no one skilled in the art can do what you have done.

But by taking intellectual property into one rubric, two things were done. The idea of creativity in writing songs and music was transferred to industrial monopoly. So in those early days in the late 1980s when the Uruguay Round was really being pushed... I don't know how many of you will remember the image of elephants being brought up from Bangkok to crush CDs, and the image created was that all these Thais and Chinese and Indians are all pirates, because they take our music and copy it. But the real intent was, in fact, a reverse piracy: how to take the biodiversity, the genetic resources, the seeds, the medicinal plants, the centuries of innovation of Third World societies, patent it, and call it an invention. I call this phenomenon biopiracy.

Biopiracy is the patenting of biodiversity and the traditional knowledge of cultures of the South. But the way the intellectual property issue was opened up to allow anything to be patented opened the floodgates for piracy and the patenting of life. Life had never been treated as a subject of patents before this. In the U.S. they made an error in 1980, and a

genetically engineered micro-organism was given a patent.¹ But in law it was never the case that you say “life is a manufacture, life is an invention; therefore, life is the monopoly of companies, and companies can now collect rents from life itself.” It is the habit of seed to reproduce. Under patent law, that is wrong. And the thinking behind all of this comes through. I’ll just give you a few examples. Roundup-resistant crops have also spread in Canada, as we have seen with Roundup-resistant soya and the very famous case of Percy Schmeiser, who was sued after Monsanto contaminated his [canola] seeds. But in the biodiversity convention, when the discussion was taking place about the bio-safety of these crops—their risks to the environment, the contamination of the kind that spread to Percy’s field—the debate ended up being Monsanto representatives standing up and essentially saying “we have invented such a smart technology that it prevents weeds from stealing the sunshine.”

Earlier, in India, Cargill—which is now owned by Monsanto in the seed sector outside North America—had come in with sunflower seeds, hybrid seeds that absolutely failed. Farmers had an action, and the Cargill chief said, in essence: “these Indian peasants are so stupid, they don’t understand that we have created such smart technologies that we have prevented the bees from usurping the pollen.” Can you imagine a mindset where the pollinators who give us the food that we have are treated as “thieves of the pollen.” The biodiversity on this planet is treated as a thief of sunshine. Peasants who do their ethical duty, moral duty, and ecological duty of saving and exchanging seeds are treated as thieves of intellectual property.

In 1987, I first came to know of this mindset by being invited to a meeting on biotechnology. That’s when I decided that my life had to be dedicated to saving seeds. I started Navdanya, which means nine seeds. It also means “the new gift.” N-A-V-D-A-N-Y-A: if you want to find out more about it, go to the website, Navdanya.org. And it’s been an amazing journey for me since then, because I’m a physicist. I walked out of my first biology class, because I had to cut up cockroaches, and biology was not stimulating for me, physics was. But I had to learn about biology from nature and peasants; they are our teachers of biology. The biology I have learnt is a biology of life. In my teaching from nature and biodiversity and the tremendous richness of biodiversity on this planet, I think it is unacceptable that life be turned into property and rents be collected from the renewal of life.

And that’s why from the day I heard about patenting on life, we started movements for no patents on life; we started movements for the defense of living systems, of intellectual systems, as the commons. And the most important outcome of this has been that when everyone thought, “oh, now there is only one way that this can go, which is privatization of the planet,” we have a new celebration of the idea of the commons. In software, we’ve got the open source software movement; in agriculture, we’ve got the open source seed movement, exchanging seeds. And we have now the Nobel Prize in economics given to a woman for her work on the commons. The privateers would, of course, have liked to see an

¹ On June 16, 1980, the U.S. Supreme Court ruled in a 5-to-4 decision that Ananda Chakrabarty, a microbiologist working at General Electric who had developed a genetically engineered *pseudomonas* bacterium to help clean up oil spills, could receive a patent for this man-made form of life. This landmark decision, *Diamond v. Chakrabarty*, opened the floodgates for genetically engineered organisms and enabled the establishment of the biotech industry.

end to any discussion of the commons, and I think they will be broken-hearted this year. The commons and democracy go hand-in-hand, as do enclosures of commons and the destruction of democracy.

As the rule-making shifted to the hands of these giant companies—and, the highest level of rule-making right now is the World Trade Organization—decision-making shifted to the hands of these corporations, and democracy went from being “by the people, of the people, for the people” into “by the corporations, of the corporations, for the corporations.” The term “free-market democracy,” that’s what it means. And it’s a very, very frequently used term, “free-market democracy.” It’s freedom for the corporations and a threat to freedom for ordinary citizens everywhere, particularly citizens of the South whose resources and whose labor drives this globalized economy.

The agriculture agreement is the other agreement. It was literally written by Cargill. Monsanto went on record to say for the intellectual property agreement: “We were the patient, the diagnostician, and the physician all in one. We defined the problem that farmers save seed, and we offered a solution: make it a crime to save seed.” In the case of the agriculture agreement, the agriculture officials were deputies to the U.S. trade negotiators, who took the treaty to Geneva, and it became the world’s treaty. It has nothing to do with agriculture. It doesn’t have the word “soil” in it; it doesn’t have the word “food” in it; it doesn’t have the word “farmer” in it. But what it does have is “market access,” “export competition,” “domestic support.” It’s about how to convert the world into a global monopoly of grain and staples. It has been done as a result of these rules, and markets have been forced open.

I remember 1998. It was a strange year for us. Monsanto came to India violating all our rules thinking “there is no democracy in this country, there is no rule-making in this country, we’ll write the rules.” But we did have laws. We had environment protection laws. We had laws about genetic engineering. We had laws for seed safety and bio-safety. And so when they entered and put huge ads about how the next year all Indian farmers would be buying their GM seeds, I checked with the government, and I asked “did they go through the regulatory process?” And the government said “no, nobody came to us, we don’t even know they exist.” And so I sued through the Supreme Court of India, and they were stopped for four years from introducing genetically engineered crops. Of course they pushed it over time. The consequence of it has been that farmers who used to have either free seed or seed for two or three rupees a kilogram—50 rupees make a dollar, so when we are talking two or three rupees we are talking a few cents—now have to pay much more for their seed. And that’s the kind of economy in which Indian peasants operate in, the majority of whom have less than one hectare of land. Eighty percent of Indian farmers have less than a hectare of land, and two-thirds of India is still farmers—two-thirds of India is on the land.

As these new seed monopolies started to get established, the first thing that happened was democratically shaped laws started to be altered. So deregulation is very, very much a part of corporate rule—deregulating environmental protections, deregulating social protections. In any case, these seeds weren’t designed to control pests, as it’s made out to be. The Bt cotton, which is the seed that is sold in India, had a Bt toxin in it, and the claim is that it is to control the bollworm pest, and therefore you can reduce the use of pesticides. The opposite happens. The bollworm becomes resistant, and new pests emerge. The seed

costs jump from seven rupees to 1,700 rupees a kilogram. Pesticide use has increased thirteenfold. The new seeds have to be bought every year. They have to be fertilized, and you need irrigation for them. This is a recipe of indebtedness, and the farmers can't pay it back. [Yet Indian farmers are trapped into this], because we signed the other treaty. The Agriculture Agreement is dragging down the price of what farmers produce for farmers of Canada as much as the farmers of India. It's designed to do that. So the cotton that the farmer produced becomes cheaper, but the costs of producing the cotton constantly rise.

The result of this debt trap has been something we have never had in India—farmer suicide on an epidemic scale. The count now according to the National Bureau of Crime, which keeps suicide records, is 200,000 suicides since 1997, and the graph of suicides goes up like this. The state where Bt cotton has spread most is Maharashtra. Now interestingly, this is the state where cotton was domesticated. It is also the state which has the oldest research institute on cotton in the world. And this cotton institute used to have 20-30 varieties of cotton suited for Indian conditions. Suited both climatically with drought-resistant cottons, but also suited for our hand-loom industry and our carding industry, because you can only use short staple cotton for hand-spinning. And the new hybrids of the Bt cotton fiber just don't work for hand-spinning. So the raw material for the hand-spinning, hand-loom industry has dried up. And the farmers are getting trapped in debt.

In this area we now have 4,000,000 acres under Bt cotton and 4,000 farmer suicides per year. So three years ago I took a pilgrimage to this area to really understand why the farmers were not giving up Bt cotton. I found they cannot give up Bt cotton, because the companies ensure that they destroy the alternative. They call it "seed replacement." Everything is very "scientific." They call it seed replacement: replacing the inferior varieties from farmers for the advanced modern varieties. So within a season, where companies enter, there is no seed. And farmers don't realize that this is happening in village after village. They think that it's just happening to them. They think they can always go to their aunt's village and get the seed. I've seen this happen to chicken farmers in South Africa. I asked "why is there only one variety of chicken everywhere?" They said, "one season, the big chicken industry came and said 'give up your old chicken, here's a new one.'" And everyone thought there's a grandmother, an aunt, a cousin, from whom they can get their own indigenous breeds. Everyone had been subjected to that same replacement. So biodiversity can be extinguished in one season—which is millennia of evolutionary history being extinguished in a second.

After this journey, I decided to do what we do in the rest of the country. Navdanya's main work is setting up community seed banks, seeds in the commons. And I've travelled to villages and collected sometimes two grains of a variety of seed. But the beauty of seed is that you can begin with two, and five years down the line you have two truckloads. Seed multiplies, and that's the problem for the corporations. So how do you prevent nature's renewal? By criminalizing renewability, by criminalizing seed-saving.

We've taught the farmers of this area how to grow organic again, and we just did an assessment, a survey with the farmers. Farmers who are now growing organic cotton and using indigenous varieties for food crops also are earning ten times more than the farmers growing Bt cotton. Farmers get into Bt cotton on the promise that they are going to be millionaires—everyone has to be a millionaire. Anything less than that isn't good enough.

And people get trapped into it. I get, I think on a daily basis—I'm sure you get it too—in the junk mail at least 20 announcements in the name of Yahoo, in the name of Oxfam, in the name of this bank or that bank, that I've just won a million dollars or a million pounds. They say you just have to send us your account and we will just transfer it. Well, of course what they do is get a hold of your account and take out all you have. And so many innocent people fall into that trap.

Today we are unfortunately becoming more insecure, poorer, more desperate, precisely because everyone is being made to chase this illusion of becoming a millionaire. I loved what the head of the Church of England just said, Dr. Rowan Williams. He said, "people have allowed themselves to become addicted to fantasies about prosperity and growth, dreams of wealth without risk, and profits without cost. The consequence of such a lifestyle has meant that the human soul was one of the foremost casualties of environmental degradation." And he goes on to say that "if we don't make a rapid shift, humanity is faced with being choked, drowned, or starved by its own stupidity." That's not typical of a church leader.

But even church leaders are having to notice that something is seriously wrong with the world that is being constructed. And it's not just the church leaders. If you have ever invested—I have never invested in stocks—but if you invested in stocks last September, you are in no doubt. And this trigger of the financial crisis that started on Wall Street went all the way to countries like India and has triggered destruction of small-scale production. It has also further destabilized an agriculture that was destabilized by WTO rules and, along with the WTO rules, the World Bank structural adjustment programs. They go hand-in-hand now. You just have to read the text. The WTO rules and structural adjustment packages say the same thing. And basically what they are saying is "don't grow food, it's not worth it." We are supposed to grow flowers to export to you and, of course, they all get auctioned in Amsterdam. We are supposed to grow fresh fruits and vegetables, and we are supposed to grow meat. There was even a report of the World Bank that said the sacred cow was a barrier to trade, and, somehow, India's religious sentiments had to be dealt with in order to encourage Indians to export meat on a larger scale. And they pushed us even further when the mad cow epidemic happened in the U.K. Remember that crazy situation where they were feeding dead and infected cows as cattle feed? And when the cows died, they ground them up, fed the resulting "protein concentrates" to cows, and more cows became infected. They turned those infected cows into hamburgers, and twelve people died before the government woke up and said something is terribly wrong.

The definition, the process, and like I said, the words created, are amazing: "Seed replacement"—it should really be "seed extinction." "Rendering." "Rendering" is the word used for when you are not supposed to figure out where it comes from or where it goes to. So when the dead cow is turned into cattle feed, it is rendered. When some poor innocent person is picked up somewhere as a terrorist and is thrown into a prison somewhere without trial, that's rendering. The same word is used, "rendering."

We have been told that food will be looked after by agribusiness. Seed—why should nature bother about seed? Monsanto is going to produce seed. But Monsanto cannot. All that Monsanto can do is produce two applications: herbicide-resistant and Bt toxin crops. They have managed to put these traits into four species so far: corn, canola, soya and cotton.

They haven't done very well with taste or quality, and they haven't done very well with yield, either, even though the advertisements these days are, "Nine billion people to feed, a changing climate, how will we feed the world?" I say, "You don't feed the world. Mothers in kitchens feed the world. Women on farms feed the world. What you do is take the tiny incomes of farmers out of their hands and leave them in debt."

On this logic—the logic that we have today—there will be no more small farmers in the world. And that's the plan. That's the design. And the design is supported by the illusion that somehow industrial agriculture produces more food. It doesn't. We are always told that the Green Revolution produces more food, but it doesn't. It produces more rice and wheat. But it destroyed our pulses; it destroyed our oil seeds; it destroyed all the multiple sources of food; it has left farmers in debt. In the early phases, when farmers were angry, they took up guns. We saw the violence of Punjab, which is when I wrote my book, *The Violence of the Green Revolution*. And now all the suicides are in Punjab. There's a train that leaves Punjab to go to Rajasthan. It's called the "Cancer Train." Half of the occupants of that train are cancer patients from Punjab, because the pesticide use has gone so high that people are now either dying of suicide or dying of cancer.

And if you go back to what started me, I was a quantum physicist, now I'm looking at agriculture. Nineteen Eighty-Four was the year that the Punjab violence really erupted and the agriculture package called the Green Revolution had been given the Nobel Peace Prize. Something's funny. This was supposed to be about peace, but we have war. What really happened? So I studied the Green Revolution. Ten times more water to produce the same amount of food than through ecological methods, and now we have a water famine in India. Nineteen Eighty-Four was also the year when innocent people, children, women, and old people, on the night of the 2nd of December were killed while sleeping, because the pesticide plant had a gas leak in the city of Bhopal. Thirty thousand people have died since then. It was 30,000 in Punjab; 30,000 in Bhopal. And now we have 200,000 farmers committing suicide. These are numbers that I have personally counted—in one little area of the world.

You go to Latin America, you see the Roundup being sprayed from the air to grow the Roundup-resistant soya that is then exported as cattle feed. Children are dying in Argentina and Paraguay. I've been in the Amazon where indigenous people are being shot and killed to clear rainforest to grow soya bean. Sister Dorothy, who used to work with the indigenous people, has been assassinated. So we are living in a global economy of genocide, and it is rooted in these decisions because of the destruction of democracy.

It's killing public health. A billion people are now permanently hungry. We have never had that in history before. Short-term famines, localized in space, localized in time. But nature is productive and people are productive. You jump right back and continue to produce food. Now you have a billion people permanently hungry. Most of them are producers of food; they are trapped in this killing economy where they spend more to grow food than they can ever earn. So they are constantly selling what they grow, staying hungry themselves, just to pay back the debt.

India has emerged as the capital of hunger. There are more people hungry today in India than in sub-Saharan Africa. And this happened during a period when India was the land of the emerging economy, of the shining India. In India "the emerging superpower" is

sometimes how we are referred to. But that growth of 9 percent was on the basis of the destruction of our food security and our agrarian systems.

The people being denied food is one side of the public health disaster. The other side is people eating food that is not worthy of being eaten—that shouldn't be called food in the first place. Sometimes we call it honestly; we call it “junk food.” And just as you do a click of the button on junk mail, we should be doing a click of the button on junk food. But junk food today is becoming the only legal option. Safe home-made food... if you have a little kitchen or you have a little artisanal cheese processing unit, sanitary and phytosanitary measures will shut it down. And I laugh and say, just at the time when humanity needs to reclaim its hands, when humanity needs to remember it has hands that work, we are told that hands are the biggest danger on this planet. Anything touched by hands is dangerous. Stuff loaded with toxins and genetically modified, that is safe and good for you. The 2 billion people who are victims of obesity and diabetes, are part of the killing economy. We are seeing this change.

Again, talking about these phrases that have no beginning and no end, India is called, a “country in nutritional transition.” Let's now explain what we are transitioning from and to. The “from” is a rich, biodiverse, time-tested cuisine that gave health. It's one of the most healthy eating systems in the world, because it is deeply balanced, and the poorest of person can afford to put their little bit of grain, their little bit of cumin and coriander, and the coriander leaves—just a few. Or your curry pata for the South Indians, gives you all the vitamin A—more than all the efforts of genetic engineering to provide “golden rice” for vitamin A—that you need. Seventy times less efficient, genetic engineering is, than the options we have. So we are moving from there into the same junk food culture.

We work with children on the food issue. In Delhi, obesity has jumped from 7 percent in 1995 to 14 percent in 2005, and between 2005 and 2008, it's gone up to 25 percent. So we are emerging as the capital of hunger on the one hand and the capital of diabetes on the other. Forty million Indians are going to be diabetic within the next decade. All because the balanced diet has been destroyed; all you're being given is starch, and artificial, synthetic sugars. And the children are being made to believe that that is heaven. I think advertising of the food industry is one more assault on democracy, because it takes away your freedom to make rational choices.

The final impact of this system of non-sustainable production is on climate change. Until recently the links between climate change and the food system were not even addressed, which is why I wrote my book, *Soil Not Oil*. And when we started to do the research and started to put the figures together, if you put the emissions from agriculture, which are three kinds—carbon dioxide from the use of fossil fuels, nitrous oxide from the use of synthetic fertilizers, and methane from the factory farming of animals—that's about 40 percent of the emissions. Then you add all the transport, stuff moving around the world, every country importing, every country exporting the same thing: the big global food swap.

We have wonderful apples in Kashmir, but the only apples you see in my local market are Washington state apples. And I had the pleasure of being served the most delicious Ontario apple by Jonathan on my way from the airport, after so long. After you've been on a trip, and you bite into an apple—the hotels have this wonderful red stuff, all

waxed... I mean, you bite into it and there's no juice! It's supposed to sit there for three more weeks as decoration pieces. This was a juicy apple. When I travel I order only fruit. And they sometimes dice up the fruit, so you can't make out whether it's a melon or a pear or an apple, because it all tastes the same. And they are all designed to live forever in a transport system, not live a short distance between where they are grown and where they are to be eaten. So even our taste is being stolen, the quality of our food is being stolen.

But in all of this you've got shipping and transport as a major issue. All breeding today is to let things that should rot, not rot. Flavr Savr tomato was the first tomato that was genetically engineered. A tomato that was never supposed to rot; it was hard like a ball, you could throw it across the room. Nobody bought it; it wouldn't cook. We miss the old varieties where you do a sauce, you chop up the tomato and it dissolves. Now you've got tomatoes sitting like pieces of meat, and I don't eat meat so it's not a very delightful thing to cook with: tomatoes that don't dissolve.

Transport adds another 10 percent. Eighteen percent emissions are coming from chopping down the rainforests to grow soya. First you have emissions from burning the forests, then you have emissions in the actual production of the soya bean. You add all these figures up, you're talking about a very large contribution. Are the corporations that are driving climate change going to say, "no, we won't ship rotten fruit around the world?" "we won't process more food into junk food and package more to add to the climate burden of food?" They won't do it. Are the negotiators in Copenhagen this December suddenly going to come to miraculous conclusions? I don't think so. The negotiations have as good as fallen apart in Bangkok, where the rich countries, and unfortunately your country [Canada], are leading in dismantling the United Nations Framework Convention on Climate Change. Which is why there was a walk out by the G77 countries.

The process right now is this: in 1992 we got the Climate Treaty in Rio. Then in 1997 we got the Kyoto Protocol under the treaty. The Copenhagen negotiations are merely supposed to be the next phases of Kyoto. They are not supposed to change the original treaty under the Kyoto phase. But the rich countries want to dismantle the very framework of a global climate regulatory system, because they want to create a bigger market, and regulation doesn't allow that. They would like all regulation to decide to "leave the sorting out of climate problems to the polluters. In fact, pay them more, reward them with carbon credits and trade in pollution, and somehow it will all get sorted out." It is not sorting out. Emissions trading schemes have actually allowed the greenhouse emissions to increase.

The U.S., anyway, never intended to do its part on Kyoto, and it hasn't. But even Europe hasn't done enough, and now it wants to get rid of what little commitments it has. They want to get rid of commitments under Kyoto, which go to 2012. So there is no legally binding treaty in the world at this point. And that's because we have a dictatorship at the economic level, which will not allow governments to take measures for environmental protection and in the public interest. If we're going to set this right, we have to begin with action. As Ghandi said, "you have to be the change you want to see." Change has never come from the top. Or, I should say it this way: change for freedom and change for democracy have never come from the top. Change for dictatorship is, of course, always from the top.

One of the costs that this genocidal economics has had is that it has robbed us of our very humanity. It has killed our humanity both by making us so scared all the time of the future by leaving us no public system, no public security, but also by telling us “all you are are just shoppers in the global marketplace. Someone has to produce cheap goods somewhere, all you have to do is buy.” And if you notice, after the financial crisis, what were the governments saying? “Buy, buy, buy!” How do you buy if you don’t have purchasing power? How do you have purchasing power if you don’t have a job, if you don’t have a livelihood? So the roots of the issue—the destruction of livelihoods of people, the jobs of people, the productive capacity of people—is not being addressed. What is being addressed is how to create more consumerism by exploiting nature more and by exploiting people more. We are seduced into this through “cheap”: cheap food, cheap clothing, cheap everything. But “cheap” has very high costs to the planet. I know in my country what a cheap global economy means to the tribals and the farmers of our land; what a cheap production system means to the women who are not even allowed to have a just return for their labor. We are much more than just consumers. Consumption in the middle ages referred to TB, of which you died. Consumption still refers to dying, except now it’s on a planetary scale.

So the first step we have to make is a shift in our consciousness, that we are not mere consumers, passive, helpless, and powerless. We are earth citizens. We are members of an earth community. And the tremendous power and energy is with *us*. That shift to citizens of the earth also goes hand-in-hand with recovery of the commons, which is the reason I have worked on saving seed as a commons and water as a commons. Wonderful women in Plachimada shut down Coca-Cola. We as citizens of Delhi stopped the privatization of Delhi’s water supply. You begin with small steps, and the small steps can have very, very large consequences.

In Navdanya, our whole concept is based on recovering seed freedom and seed sovereignty. First, the sovereignty of the seed itself: the seed should be able to reproduce. We don’t need terminator technologies to take away the future of the seed. And we need farmers’ freedom to save and exchange seed. We need society’s freedom to have options of the produce of different seeds and not just from four genetically modified crops. It breaks my heart to know that 90 percent of industrial foods in rich countries are now based on strange mixes of corn and soya into everything—even sugar is from corn. Everything is now corn and soya, corn and soya, corn and soya, and most of it is genetically engineered.

We started the movement for “food sovereignty.” And food sovereignty for us first and foremost means growing food in ways that don’t harm the earth. Growing it in freedom as sovereign producers, having the freedom to choose what you grow because part of the global economic dictatorship is that farmers don’t have a choice. And that choice is taken away either through law—as in the case of intellectual property rights and sanitary and phytosanitary measures—or it gets taken away through technology. If you’re a small farmer in Argentina, you cannot grow any food for yourself. You can’t have a kitchen garden, because the Roundup sprayed from the air kills everything green that it comes in contact with; the only plant that survives is the Roundup-resistant plant.

In our food sovereignty movement, we’ve linked the community seed banks, the organic production, and the direct marketing—two small steps. You know, I am very, very

bad at business thinking. But we are there in the market, in a farmer-run movement. Farmers are not very good sorting out the balance sheet. And yet, when they don't do it as working out a balance sheet, but do it as their ecological responsibility and their sovereignty, suddenly everything falls into place. Just as much as, if you're a good organic farmer you don't look at your production, you look at feeding the soil, and the soil looks after feeding you.

And we are looking at the wrong end of things. They're torturing a cow into giving more milk with rBGH. And you have a very famous case where Health Canada didn't allow [research on health effects of rBGH]; and all scientists involved were turned out of their work. That, too, is an aspect of fascism. Every independent public scientist who did honest work, according to what they were meant to do, was removed from the system by the pressure of these corporations.

We've also started a school of the seed, a university of the seed. I call it the Earth University. Simple steps of learning once again how we live at peace with the Earth. I think we are again at that moment in evolution as a species when we can either choose to sleep walk into extinction or we can choose to build a new freedom, and through that new freedom a future for our species. Freedom, sustainability, justice, and peace have become inseparable from each other. You can't work for any of them partially; they all come together. An economic system that is a system of peace also creates a just system. A system that is just, which allows people to have their share of the resources of the earth, is a system that would be sustainable. And a system that is sustainable will be a system that will be based on freedom of the people, freedom of the earth, freedom of the species.

I'd like to conclude by sharing with you a very ancient tradition from India. But it could be contemporary ecological learning in a university. It says "the universe is the creation of the supreme power meant for the benefit of all creation; each individual life form must therefore learn to enjoy its benefits by forming a part of the system in close relationship with other species. Let not any one species encroach upon others' rights." And in the work that we've done at Navdanya, what we have found is that the more space that you leave for other species, the more generous the species are to you and the more food they give you.

So the idea that you must turn the world into monocultures, fumigate them with herbicides, load them with pesticides, ship them thousands of miles, process them to death, and somehow you get more food? It's not true. Any food system that destroys biodiversity is impoverishing our food supply. Because, ultimately, everything on this planet is food, and the more food we leave for others, the more food we have for ourselves.

And the final teaching I will leave you with says "a selfish man, over-utilizing the resources of nature to satisfy his own ever-increasing needs, is nothing but a thief, because using resources beyond one's need would result in the utilization of resources over which others have rights." That is Earth Democracy. On this beautiful planet there is enough for all, as Ghandi said, but there isn't enough for a few people's greed. That is what we have to cope with, the excessive greed that has become like a cancer on the planet and in our societies. And we can do it together, and each of us in our lives.

Thank you.