Seeds of Revolution

Scientist, Author, Activist Vandana Shiva Leads Movement to Restore Sovereignty to Farmers



Americans who visit India often come back more or less overwhelmed by its vast size and complexity, and if they are not stunned into silence they are at least much less willing to engage in generalities. Timeless beauty, explosive economic growth, persistent poverty and about a billion people all make for an intense experience if you're used to the predictable movements of cars and shoppers. One thing that does emerge from the ancient nation's recent history, though, is the way societies that seem chaotic and disorganized to outsiders actually offer opportunities for their citizens who are willing to act with boldness, imagination and fierce resolve. Gandhi was one such actor, and Vandana Shiva may well be another. Increasingly well-known here as an author and lecturer, her popularity makes her a pain in the neck to proponents of industrial agriculture. (Corporate ag apologist Michael Specter recently honored her with an attack in The New Yorker.) It's a whole other story back in India, however — there Shiva is a force for change not only among the commentariat but also on the ground. She agitates for legislation and political change at one end of society while leading a movement to empower farmers at the other. Shiva is that rarity in modern life, an intellectual who sees possibilities for action in the world outside her study and moves to set them in motion, working with fellow sojourners to build and sustain a counterforce opposing the corporate status quo over the long haul. On a recent trip to California to speak at the Soil Not Oil conference as well as the Heirloom Expo, Shiva covered an amazing amount of ground in less than an hour. Readers who need a little context are advised to consult Wikipedia on the Bhopal disaster — a 9/11-scale tragedy linked to agricultural chemicals — in particular and modern Indian history in general.

Vandana Shiva

Interviewed by Chris Walters

ACRES U.S.A. How should we approach the story of Indian agriculture?

VANDANA SHIVA. The first thing you need to remember is that India is a land which has been farmed for 10,000 years continuously and sustains more than a billion people on its agriculture. India is the land where the

British were the rulers, and in 1891 they sent John Augustus Voelcker to make a survey. He wrote a report on Indian agriculture that was published two years later. He said he could find more ways that Indian farmers could advise Great Britain about how to improve its farming than ways the British could advise India. He wrote that Indian agriculture was not back-



ward, and that in many areas there was little or no room for improvement. Then the imperial British government sent Albert Howard to India in 1905. He arrived to find the fields were fertile. He found no pests damaging the crops, and he decided to make the study of peasant agriculture his profession. The agricultural testament that resulted from his studies became the basis of the organic movement worldwide - the soil association in the U.K., Rodale in the United States, all of them came out of Howard's information. and Howard's inspiration was ancient Indian agriculture. He so clearly distinguished between, as he said, the agriculture of the Occidental world and the agriculture of the Orient.

the time, and I did a book called The Violence of the Green Revolution. The Punjab has been devastated, but not just Punjab. That was in '84 and we are now in 2015, and I was in Punjab before coming to California. Farmers are committing suicide on a very large scale. The soils are dead. There's a hospital train called "the cancer train" that leaves Punjab because of the toxic chemicals. The water is disappearing. The farmers grow commodities wheat and rice, not for food, and those commodities then rot in storage. This is not a food system by any means. The true story of India's agriculture as a sophisticated agroecology system doesn't get told. The negative impacts of the Green Revolution now continue

"I love my land, I love my people, and I'm proud of India's ancient traditions, which have sustainability built into their core. These are not stagnant traditions; they're evolving all the time."

ACRES U.S.A. Only a few decades later, Voelcker and Howard and World War II had come and gone. How did the story change from admiration to alarm over impending starvation in the 1960s?

SHIVA. It changed to, "Oh my God, these pathetic people, they don't know how to farm, we're going to teach them, they're starving, we're going to bring them food." They first had to show that was the situation. After all, what is the narrative of the Green Revolution? The introduction of chemicals into India or into the Third World was first tried in India in the name of the Green Revolution in Punjab. The narrative of the Green Revolution is that we were starving before it came in. This was what got me into agriculture, because I was trained as a physicist in quantum theory - this was not my chosen area of work. When India erupted in violence after the Bhopal disaster on December 2, 1984, it forced me to see that something was wrong with agriculture. I decided to look into it. I worked for the United Nations University at

as Monsanto enters the scene with its Bt cotton seed, pushing farmers into debt by shooting the prices of seed up thousands of percent higher to collect illegal royalties - illegal because Monsanto doesn't own the seed - in India they were not allowed to have a patent. So we have tragedy of a very severe kind - 300,000 farmer suicides by official government data. All I do is go deeper to find out what the death is about. In the cotton areas, the deaths have to do with Bt cotton seed.

ACRES U.S.A. How do you and your colleagues work to fashion an alternative?

SHIVA. I love my land, I love my people, and I'm proud of India's ancient traditions, which have sustainability built into their core. These are not stagnant traditions; they're evolving all the time. Part of what we do in Navdanya, the movement I started in 1987 when I realized that these poison corporations now wanted to own our seeds, is to save thousands of seed varieties. We've trained nearly a million farmers over

the years in organic farming, in awareness of seeds and why they should be using their own seed. We've built the largest domestic network of Fair Trade organic products and biodiverse organic products. These farmers are saving their seeds, doing organic farming and participating in fair trade which means they shift the market. They're sovereign in seed, they're sovereign in food, and they're sovereign in the economy. That has increased their incomes tenfold. We have increased nutrition production - we call it "health per acre, nutrition per acre" - so that a farm on half an acre can feed itself from the surpluses. Doubling food production, increasing rural incomes tenfold – that is the answer to hunger and poverty, not the myths that make superprofits for the Monsantos of the world and kill our farmers.

ACRES U.S.A. How is this movement organized?

SHIVA. Navdanya's work begins with creating community seed banks to conserve biodiversity so communities of farmers start taking care of their seed. They facilitate seed collection and training, and they set up community seed banks so that they have their own seed supply. That's one level. We have helped set up more than 120 community seed banks in the country. Unlike seed libraries in the United States, which are literally outside the agricultural system, our seed banks are the base of an agriculture system, a non-industrial agricultural system. For us, it's very important that we save seeds to shape another agriculture, because we can't isolate the seeds and trying to shape agriculture in isolation while the Monsantos take over agriculture. While I've been in California I gave a keynote and did a panel at the Heirloom Expo. What I've been repeatedly saying is that one thing industrial agriculture did to the United States was that it not only fragmented the agriculture - it fragmented the thinking about agriculture, including the thinking of those who respond to the crisis. The pieces don't connect because of the Cartesian idea of either/ or - if you don't do labeling, for example, then everything will collapse, or if you don't do this or that, there goes

everything. It's all a part of one system! The seed saving is our foundation. The seed saving then leads to an agriculture that is biodiverse and ecological, and that is where the training comes into the picture.

ACRES U.S.A. What goes on at Navdanya in terms of education?

SHIVA. We do trainings locally, for coordinators at the level of different states. We work in 17 states, but we also have national trainings, which is why I have built up the Earth University. We have a farm where we grow more than 2,000 crop varieties. It's a living thing, a living university where people learn by being there. Of course they learn the science, they learn the theory - but they also learn the practice. The longest course we offer is a one-month course on the A-to-Z of agroecology and organic farming. We teach living seed, living soil - because industrial agriculture presents soil as dead and inert and an empty container, seed as an empty container waiting for toxic genes through genetic engineering, food as just stuff you put into your mouth, not living nourishment that brings you health and becomes what you are. We teach living economies at the time that the dominant economy is only creating catastrophe, unemployment and crashes. These courses have become very important catalysts to large groups of farmers who come from across the country to train there. When I travel to a certain region, 10 years later farmers who were trained at our farm are now running the organic movement of a state, working with the government to help declare their state as an organic state. That has happened in five states - Uttarakhand, Madhya Pradesh, Kerala, Sikkim and Jharkand. So the word from the grassroots is starting to have a trickle-up effect on policy. The production units work at the cooperative level. They are producer groups who organize themselves to do the organic production and then make sure that the amaranth in a high mountain village reaches Delhi or a very rare bal mithai (a chocolatelike fudge) from tribal areas of central

India gets to market. So community seed banks coordinate at the regional level, cooperatives at the local level and research and training back them up so we have the cutting-edge science which is needed to inform policy. We do all of that.

ACRES U.S.A. Does political activism play a role here?

SHIVA. We also do civil disobedience, which is a very important part of our work. If there's an attempt to pass a bad law, or permit a GMO, we've done civil disobedience and stopped it. One of the things I have done here at the Heirloom Expo in California is to distribute a newspaper devoted to ending seed slavery, which is available on the Seed Freedom website, seedfree dom.info. California passed an insane law that took effect on the first of January 2015 saying that people cannot exchange seed beyond three miles and only Sacramento can write any law related to seed - no county, no local governments - and that only corporations can do research and breeding, that all other breeding is unreliable. At a time when corporate breeding gives us toxic food whereas public breeding, community breeding and farm breeding give us robust, resilient seed, full of nutrition, the final straw in that seed law which must be challenged is the part that says corporations are persons. Corporations are not persons. We give entities a legal right to exist. It stops with that. It stops with a legal personality, and that legal personality should be revocable by society when the corporations become antisocial and commit crimes against nature, against humanity. The destruction is everywhere. Whatever we have been able to do in the last 30 years in India, I want to share it with others who have the same problems, including California and its very silly seed law. There should be civil disobedience against it, and not just in California. If it stays on the books in California it will be tried in other states.

ACRES U.S.A. Do you think Americans could use some education in Gandhi's principles of nonviolent resistance?

SHIVA. Of course. We have a course in Gandhi and Globalization set up for next year at Earth University, followed by one month of A-to-Z. Your readers are welcome to come visit India and learn from Ghandi.

ACRES U.S.A. How do Gandhi's principles inform or influence your struggle?

SHIVA. Every dimension of Navdanya is inspired by Gandhi. Let me take it one step back. In 1984 when violence erupted following the assassination of Prime Minister Indira Gandhi, and then the tragedy took place in Bhopal, I read in those happenings signs of violence of the highest level. It was Gandhi's teachings of nonviolence that forced me to look at the system of violence and start shaping a nonviolent agriculture, for which I turned back to Albert Howard and whoever else had done this work. I thought of Gandhi back when the British Empire controlled 85 percent of the territories of the world. What he did was take out a spinning wheel and start to spin cloth. He said the empire is based on textiles. He said we will only be free when we start making our own clothing again. He called it *khadi* – self-made cloth. He said the spinning wheel is not primitive compared to a factory in Manchester - the spinning wheel brings you liberation. For us, it's exactly the same. Our seeds are not primitive; they're seeds of freedom and seeds of hope. Monsanto's GMO seeds are seeds of death and seeds of soil destruction. We've just done a soil analysis in the Bt cotton areas, and the bacteria have dropped 250 percent compared to organic farms! In four years of planting, 22 percent of beneficial soil organisms were killed by the release of the toxins. Fungi have dropped. The soil organisms have dropped in the Bt cotton area. The idea of nonviolent farming comes from Gandhi. We call it bija swaraj - bija is seed, swaraj is serenity and self-governance. I wrote a piece called "Bija Swaraj, Not Bt Raj."



We attempt to make farmers sovereign in seed and food, to make communities sovereign in seed and food. Then it comes to Gandhi's most important lesson, not cooperating with unjust law. He first experimented with it when he was in South Africa and they were laying the legal framework for the apartheid regime. The British passed a law that Indians had to wear a badge showing they were Indians and different from the whites. Gandhi said we are equal citizens. After all, it was in South Africa when they pushed him out of a train's first-class compartment - he was a lawyer and traveling first class, and they pushed him out. That's when he woke up to racism. That's when he realized how cruel the world can be. Then apartheid started, and he said, "We will not obey." He did a march, he went to jail. He organized the Indian community. That took place, interestingly, on September 11, 1906. We call it "the other September 11."

ACRES U.S.A. Didn't his first campaign in India involve poor farmers?

SHIVA. When he came back to India the first thing he did was go to the area where the British were forcing our peasants to grow indigo. The peasants were starving so that the mills in the U.K. could depend on a supply of the blue dye. He spent time talking to farmers. His hut in Champaran was burned twice by the planters, but at the end of it the peasants organized with him what is called the Indigo Satyagraha. Imperialistic economic systems - which are what we have now except we have corporate empires - are organized around asking, "What do people need, and how can we monopolize it?"

ACRES U.S.A. Some time later another crucial satyagraha, or nonviolent rebellion, involved another food staple.

SHIVA. Yes. When they tried to make a monopoly of salt with the salt tax in 1930, Gandhi walked to the beach – the famous Gandhi march - picked up salt from the sea and announced that since nature gives it for free and we need it for our survival, we will continue to make salt, and we will not obey your laws. The Salt Satyagraha triggered a

whole new urge for breaking free of imperialism in India. In my region we're up in the mountains near the Himalayas – there's no salt, but we had forests that were being enclosed. The people said these forests are ours and they walked into the forests and did a forest satyagraha. Hundreds died in the process. That became the basis of the later movement which was my first ecological movement when I was still a young student, the Chipko movement where women came out to embrace the trees and say you can't kill these trees, they're our mothers, you'll have to kill us before you kill them. And that stopped the logging in the high Himalayas. Gandhi's tradition of civil disobedience has been the basis of us having seeds that we can use after cyclones and after drought. Tree fruits that are delicious and tasty, seeds that have more nutrition like our wheat, seeds like the basmati seed which were patented by an American company – a case we had to fight. All the old wheat that was patented by Monsanto everything that exists is being defined as an invention.

ACRES U.S.A. Do you believe the spirit behind the Green Revolution was deeply paternalistic?

SHIVA. I don't think it was just an issue of being paternalistic. I think the issue was that it was a system based on chemical warfare. Norman Borlaug came out of a defense lab viewpoint. After World War II the corporations deployed these chemicals into agriculture. From 1952 onward, Rockefeller and the Ford Foundation tried to push this on India. It wasn't working because native seeds and chemicals don't go together. Norman Borlaug was sent from the DuPont defense lab to Mexico to work on dwarf varieties of wheat to adapt them to chemicals, and he got that done. Then in 1965 we had a drought, and the drought raised food prices. There was no starvation, there wasn't a famine. There was a rise in food prices, and India asked for additional shipments of wheat. The United States government said, "Sorry, we won't send wheat unless you take the chemicals and shift your agriculture to chemical farming." The term "green revolution" came much later.

The prime minister of that time, Lal Bahadur Shastri, said he would not experiment with an entire nation of farmers. He told them, "We can try it on a small scale. If it works, we'll adopt it, if it doesn't, we won't. But you can't force us to use these chemicals." He died mysteriously a year later in Tashkent and the pressure continued. The conditionality that if we did not adopt chemical farming we were not going to get that additional bit of wheat for that year to bring relief and stabilize prices – that's more than paternalizing, it is forcing.

ACRES U.S.A. Then it was actually more a form of aggression?

SHIVA. It was aggressive, yes, very aggressive, inhumanly aggressive. Our first agriculture minister, Panjabrao Deshmukh, was a close friend of my parents who visited us often. He said agriculture is based on two cycles - the nutrition cycle and the water cycle. These cycles have been broken because of the war and because of colonization. We have to fix the cycles to fix the nutrition cycle – which is your composting, exactly what Howard had done. To fix the water cycle we have to conserve water and do water harvesting. We knew what we had to do. We had entire programs. I once met an 80-year-old former civil servant after giving a talk who said, "You know, Dr. Shiva, when we were training in the civil service, we would learn how to compost." That is the moment in which the Green Revolution was introduced. There was so much alternative potential growing.

ACRES U.S.A. And the alternative meant growing as a way of correcting the distortions of agriculture imposed by the British Raj – the colonial authority – over the previous century?

SHIVA. Yes. Over the previous century, and due to the destructions of war. Don't forget, we had the great Bengal famine during the war, 1943-44.

ACRES U.S.A. That's not widely known over here.

SHIVA. Oh! Two million people died. There was more rice than we



INTERVIEW

needed but the British were extracting all the rice from the peasants to profit in trade during the war after the Japanese seized Burma. During the famine, women started a movement called naribahini, fighting the police who came to stop them from threshing rice and saying, "we will give our lives, we will not give our rice." 1942 was the year Gandhi called on the British to quit India. It was called the Quit India movement. But the famine occurred not because India didn't know how to produce food, but because every drop was being extracted. The combination was cash crops and trading.

ACRES U.S.A. And there is a clear parallel with the present day, as many of the world's farmers grow cash crops for the commodity markets and can barely feed their families.

SHIVA. Farmers are half of the hungry in the world because they're made to grow food and raise it in debt. They sell what they grow, and they don't have enough to eat. Yes, the Green Revolution was very badly intended, but it wasn't long after that came what is called the second green revolution, the combination of GMOs and global free trade, written on the basis of rules made by Cargill and ConAgra. What we have is a recipe for disaster. The two million who died in 1943-44 are nothing compared to the famines that will hit the world when only profits guide how we do agriculture, rather than the care of the land, the dignity and justice of the farmer and our concern and awareness about our health which comes from food.

ACRES U.S.A. Where is Earth University is located?

SHIVA. Earth University is located in Doon Valley, a beautiful valley up in the Lower Himalayas. Many Americans will know it as the valley of Rishikesh, with the ashram, the yoga, the meditation - that's where the Beatles came to study with the Maharishi. Our valley is a beautiful valley. It's the first valley of the Himalayas, with the Ganges on one side and the Yamuna on the other, and the higher mountains on the north

and the foothills on the south. It's not a very big land, but it's where I was born and where I returned to do this work. Because it was about taking care of the earth, I thought it had better be the place which had given me birth.

ACRES U.S.A. The average age of farmers in the United States is high, they tend to be middle-aged or older. Does India have a similar problem with the farmers growing older and not being replaced fast enough?

SHIVA. You know, farmers have always gotten old. Everyone gets old. I'm old now. But when a system is stable, younger generations take on the options that are available to them. It is only in recent times when industrial agriculture came to the United States and the Green Revolution came to India that younger generations have started to abandon farming, and it is the result of two factors. One is that these systems of agriculture are design to extract profits from the farmer. They sell costly inputs and buy cheap commodities which means the farmer's economic livelihood becomes nonsustainable. Farmers get into debt - in this country look at the number of family farms that have disappeared, look at the number of farmers having to rent their own land back from the banks and the mortgages that made them lose land ownership. Now if a young man of 20 is seeing an indebted farmer, or in India a young person has seen their father commit suicide because Monsanto extracted so much royalty that they pushed the farmer into debt, that young person will not want to go into farming. But there is another aspect to it, and that has to do with the fact that industrial farming is not just a war against the earth and a war against farmers. It is a war against farming as an occupation. It can only work with the repeated propaganda - farming is backwards, working on the land is primitive, you only do it if you have no options. Move to the city and find a specific job; that is progress. Our leaders say that we should wipe out our villages and put everyone in the city. This very artificial narrative that farming, villages, farmers, are part

of an obsolete existence that should be wiped out, that progress is destroying agriculture for industry, destroying industry for services - it got internalized, this forced narrative of progress. So young people will leave the village and toil in cities and join gangs because nobody is really providing them with alternatives. Our work in Navdanya is to make young people feel that farming is exciting, it is full of knowledge, that through seed sovereignty and ecological agriculture and your own participation in markets on your terms you can actually make a dignified living. I really feel happy that in the last 30 years so many young people have moved back to villages after the trainings.

ACRES U.S.A. Can you give us an example?

SHIVA. My colleague Darwan Singh Negi is now a master trainer at the national level. He's the one who goes to Bhutan to train the Bhutanese farmers to grow organic. As you know, the government of Bhutan asked us to help them go 100 percent organic. I go there once in a while, but Darwan goes there all the time. He was a young man who had run away from the village, came to work in Delhi and worked with me in the office. Two years later, sitting in the office, he said, "Veve, this work is good work. If you let me go back to my village and support me, I will become a Navdanya activist." In the first year he made 200 villages pesticide-free! He inspired people in his valley so much that traders of pesticides gave up selling pesticides and became organic farmers. And this is one person - there are hundreds like this. Young people who come to train with us because of the work we've done go away knowing plenty. This is the food system that needs to be put in place so that life can be full of dignity, meaning and justice.

ACRES U.S.A. How were you involved in the struggle to save the neem tree from getting patented? What has happened since then?

SHIVA. The story of the neem goes back to the Bhopal disaster of 1984. It took about three days before we were

allowed to go there because of the poison in the air, but I went with a bucket full of neem saplings, and I planted them. We drew a poster, I made it myself, and the poster's title read, "No more Bhopals, plant a neem," because neem has been used in India from ancient times as a pest control agent. We use the neem leaves in our grain and our seeds, we use the neem leaves in our silk and our woolens. Everyone – my grandmother, my mother – knew that neem controls pests. And yet we were making toxic pesticides that killed 3,000 people in one night, 30,000 since then, and hundreds of thousands of babies who are stillborn, crippled and with birth defects. We were already training farmers in organic farming, because before I started seed saving in 1987 we were already creating awareness of organic farming. I had always wanted to do a neem workshop on the side. And neem is all over the country. You'll always find neem in the school building if you're doing a school workshop, or in a village commons. That was 1984. In 1994 I read in a journal about the world's first invention of the use of neem as a pesticide. It was a company called W.R. Grace, the one that poisoned the water outside Boston, resulting in a big lawsuit and a book called A Civil Action.

ACRES U.S.A. Right, them. That was a big case from the early 1980s when a leukemia cluster appeared in a small town in Massachusetts, and the lawsuit against Grace, Beatrice Foods and Unifirst went on for years. Even 30 years later that is still an infamous pollution case here in the USA – it even became a popular film.

SHIVA. The interesting thing was that they had no idea what you do with neem. Nor did the person who first patented it, an American called Larson. He was traveling through India, saw women putting neem leaves into the grain, and asked why. "It controls pests," they told him. He was smart; he visited public institutions, and he collected all the publications he could find on the pest control properties of neem. He took those publications and wrote a patent application, got a patent and then sold it to Grace. Interestingly, the one we challenged was listed to Grace and the U.S. Department of Agriculture. When I saw this patent, I immediately organized a neem campaign. Over the years we must have collected more than 100,000 signatures. We held beautiful neem rallies with neem branches all over the place. We wrote books on how useful the neem was, brought it into popularity again, and initiated a legal challenge with those 100,000 signatures. The neem patent was registered in the United States and in Europe. Our laws in India did not allow these patents. When we pulled the application for the challenge in the United States – I did the one in the United States with Jeremy Rifkin - the U.S. Patent Office asked, "What is your commercial interest?" We answered, "We don't have a commercial interest, we have a public interest. We care for our knowledge and we want to stop biopiracy." The term "biopiracy" gained currency because of the neem challenge. The U.S. Patent office wrote back and said, "Sorry, we only entertain challenges from commercial interests." European patent law includes a public interest clause, and they admitted our challenge; in Europe I did it with the international federation of organic movements, IFOAM. Its president at the time was Linda Bullard, and the head of the greens in the European Parliament was Magda Aelvoet, both of whom I knew well. I told them I wanted to bring this challenge and asked if they'd join me because I wasn't going to be able to fly over from India all the time. We did all the groundwork, we did all the evidence, we did all the finding of scientists and bringing the farmers. But it really was these wonderful women, and a wonderful lawyer called Dr. Dolder, who gave his time pro bono.

ACRES U.S.A. If memory serves, you won it on appeal?

SHIVA. We fought the case, and we won the case. Grace and the U.S. Department of Agriculture appealed, and it went for an appellate hearing. I remember so clearly – it was the 8th of March in 2005 – and the judge of the patent court said to come back after lunch. We came back after lunch not knowing whether the patent would be struck down or our challenge would

be struck down, and the judge said only one line - "Happy Women's Day, you've won." So even the appeal was defeated. I think it was a historic case because 100,000 people from an ancient Indian culture protected their knowledge and their biodiversity. It was global solidarity that won it. Since then we've continued to popularize the use of neem. I'm encouraging young people to set up small oil extraction units in their villages. The tree is growing, they use the leaves and so on, and the oil comes from the kernel of the seed. You can harvest it every year. The neem grows in every climate in India so it helps promote an agriculture without chemical pesticides. Neem is a very important friend in that.

ACRES U.S.A. The struggle to keep it in the public domain pointed the way to a viable enterprise?

SHIVA. I really feel the only way we're going to solve the unemployment problem is by turning to businesses related to protecting the earth. Small-scale, decentralized economies are the key. We call them living economies.

ACRES U.S.A. How bad a problem is biopiracy?





SHIVA. Biopiracy is an epidemic. The most serious piracy involves plundering the innovation by farmers of the Third World who have evolved climate-resilient crops. Today the Monsantos and the Bill Gateses of the world are presenting the pirated climate-resilient crops as their inventions. Bill Gates wrote an article about it - "Oh, Melinda and I were visiting a farmer who is using seeds we introduced" - seeds that tolerate flooding. Well, it didn't come out of Bill Gates' labs, it came from Indian farmers. They pirate the seeds and take a patent. Monsanto, Bayer and Syngenta have 1,500 patents on climate-resilient crops! They are looking toward the climate crisis as a way to deepen their monopoly. If you look at the last few years, every time there has been a disaster – an earthquake, a tsunami, a cyclone - they have arrived with their GMO seeds. After the earthquake damaged Nepal so badly in April we kept getting calls - half of their seed banks had been damaged in the earthquake, buried under homes. The earthquake happened in April, by May we had to get the seeds there. We put the seeds together. At the border, the customs officer saw a very strange circular saying, "No seed except ..." - and there was a list of companies, Monsanto and a Monsanto subsidiary. Only those seeds could enter. We checked with Nepal's agriculture minister and he said, "I never passed

this order." They'll even exploit an earthquake to make a monopoly!

ACRES U.S.A. You mentioned earlier that historic resources such as the neem are protected by federal law in India.

SHIVA. We managed to get into law clauses stating that biopiracy is illegal. Of course I've been working a lot with my government to have it declared illegal at the international level in the World Trade Organization, but that's been blocked repeatedly by the U.S. government. Our work of course is to make sure this heritage is protected, and we believe it's the communities that are the biggest force of being guardians of biodiversity. In 2000 we started a very beautiful movement which then led to my writing my book Earth Democracy - it was the living democracy movement against the chemicals and all the pushing of GMOs. It became big and communities began to come together discussing how to protect their biodiversity. They wrote this most beautiful declaration, just drafted it at the local level. About 200 villages were the first to do it, and it spread to about 6,000 villages. The text basically said, "We are part of the earth family. The tigers and the wolves in the forest and the trees in the forest and the seeds in our farms are all part of our earth community; therefore we do not accept the destruction,

the privatization through patenting, the pollution through chemicals, and we will protect our family, the earth family, as we protect our own family." Not only did they make these declarations, but the villages wrote postcards to the WTO chief and to the corporations who were pirating. To the WTO chief they said, "You're supposed to look after trade. Creating ownership of our family members is not about trade. This is about ethics. You are overstepping your jurisdiction. The head of WTO actually came to India as a result of these letters. But the most wonderful one was when they wrote to Monsanto and Syngenta and said, "It's not that people don't steal, people steal, but usually people steal in desperation. A child will steal food if they've been hungry. Someone else will steal something because the mother is ill and they need money to buy medicine. If you are stealing, you must be experiencing desperation. Come and sit under our people's tree, the sacred ficus, in our village commons where we resolve all issues of importance in the village. Come and explain to us what is your desperation. We will try to understand and help you out!" They never came, but oddly it gave the villagers such confidence.

For more information on Vandana Shiva visit nav danya.org, seedfreedom.info or vandanashiva.com.