

Welcome to Turning Conscience Into Action, the Earth Charter podcast. Join Mirian Vilela, Earth Charter International Executive Director, in her fascinating conversations with great thinkers, scholars and activists from around the world who are working in the fields of sustainability, ethics, education and social transformation. Our purpose is to generate new insights on how to face current global challenges and inspire informed action.

I'm happy to welcome Vandana Siva to our Earth Charter podcast.

Vandana is obviously a reference and an inspiration for many of us. I have been following your work for over two, maybe three decades and I'm truly delighted to have you here today to share your insights with our listeners. So Vandana, thank you so much for joining us. Thank you. So before we dive into our conversation, I want to briefly introduce you to give our audience an overview of your incredible background. Vandana Siva is a Ningen scholar, an environmental activist, food sovereignty advocate and eco-feminist, many other things, who incredibly have written 20 or even more books.

And it's quite interesting that in 93 you received the Right Livelihood Award. And Vandana is one of the leaders and board members of the International Forum on Globalization and was a founding board member of WIDU, the Women's Environment Development Organization, which is really a very dear organization to me because I remember well when WIDU significantly contributed to the drafting process of Earth Charter back in 97. So thank you for being here with us. My pleasure. So let's start with our conversation talking about Earth Democracy.

So you wrote a book, I think it was published in 2005 entitled Earth Democracy, Justice, Sustainability and Peace, which is obviously a valuable contribution to the paradigm shift that many of us are working on. And of course, your work is very inspiring and very similar to the principles that are related in Earth Charter. So in the book, you make a call for a shift in the values that govern democracies. You start the books really stating that Earth Democracy connects the local to the global and it incorporates the notion of Earth family.

So could you comment a bit on this and on the key concept of Earth Democracy and why you think that is important for the current times? The published book was in 2005, but I started to write it immediately after the Seattle protests on Dumpty Tude because we stopped the World Trade Organization. And in those days, the World Economic Forum was saying this will be the future constitution. All national constitutions will not matter in the future. Basically corporations will rule the world. And we had created a group called the International Forum on Globalization.

And we knew that a world ruled by corporations is the end of democracy. It's the end of freedom.

We mobilized, we stopped the WTO. And then the journalists' ad nauseam everywhere in India, in America would come to me and say, well, we know what you're against, but you don't know what you're for. I said, no, we are for the Earth. That's why we don't want privatization of our water and our seeds. We have for people's freedoms. That's why we

don't want corporations to set the rules of how we are governed. We want freedom for our people, not freedom for capital. And I just decided when there were too many of these questions, I said, I'll write a book.

Initially it began a little like a little book, and it then grew into the published book. So what do I mean about shifting the values of democracy? First, shifting from the idea that we are individuals to the recognition that we are community. We are social community and we are Earth community. And that's why, in my view, Margaret Thatcher was so wrong because she was the leader of the neoliberal project. And she said, there's nothing like a society that's only individuals. And there's nothing like an individual.

There's only community because we wouldn't exist if we didn't have relationships that support us socially and ecologically. The second shift is that we are not consumers in a market place. The world is not a market selling stuff. And we are not just consumers buying things of a consumer market share. We are Earth beings. And we have the power to produce what we need. And that, to me, is true economic democracy, sovereignty in your economic system, dependence on corporations for everything you need.

And those were the days I was resisting the idea of corporations like Monsanto being inventors of life on this planet. And I said, I know if they control the sea, there will be no sea for the farmers. And that's why it was very important to also not just defend community as the basic unit of society, but to defend the commons as what nature is. Nature does not exist as property. Nature and society have a relationship with the commons. Property creation is as recent as colonialism, you know, lock articulately to the creation of private property.

Lord Cornwallis just declared that the land and soil of India was the property of that little island that ruled us. And overnight they turned the commons that were cared for 10,000 years into property for which royalties and rents were extracted. Transferring \$45 trillion to the UK from India, leaving our peasants impoverished 60 million famine deaths. So, Earth's democracy then is the recognition that we are part of the Earth. The Earth is alive. Every being on the Earth has a right to be. Every being on the Earth has a right to freedom.

A tree has a right to not be cut down. A river has a right to flow unpolluted and undamped. And these are the basic principles that bring the rights of nature and the rights of humanity in its full earthiness and its full membership of an Earth community. It allows that potential to occur. Wonderful. Indeed, I love the way in which you articulated these ideas of defending community, the notion of community, defending the commons, and nurturing this idea of we belong to an Earth community, as it's articulated there.

So in our slogan, the Earth Charter International Slogan is turning conscience into action for thriving Earth. So when I hear you saying, and we think, okay, what's that kind of conscience that we need to awaken? And by hearing your words, you would agree that it's the conscience that we belong to an Earth community. Is that right? That every belong to an Earth community and the Earth and the universe is a conscious universe. That is not dead matter because colonialism connected with the ideas of that time in terms of mechanistic ideas reduced the Earth to dead matter, which was mainly raw material for the industrial supply.

They took the living Earth and really took the life out of her and said, just raw material. But that is a consequence is not just in fact that we stop seeing the Earth as living. We stop seeing the relationships that make the Earth's life. But most significantly, we dismember the Earth because in my many, many years, I've done scientific studies for government. I've done movements, research, you know, a mountain of bauxite or limestone is really a mountain of water. And for the communities, what matters is the water.

For industry, all that matters is the bauxite or the limestone. So they destroy the basic integrity of what I call the infrastructure of life to create raw material for the infrastructure of province. And that is basically killing the consciousness that allows us to live in peace with the Earth.

Okay, so let's talk about seed sovereignty and food security. Significant part of your work has been focusing on this idea of seed sovereignty and food security. And sometimes we look at this dilemma of the number of the world population, the need for providing food for everybody, how to produce food.

So can you share with us why do you think it's crucial in seeds of her entity and how does it relate to broader issues such as biodiversity, conservation, justice and sustainability? Because there, I think the world now has a lot of misleading information regarding food security and seed sovereignty, depending on where the message comes from. Because when we hear sometimes advertisements from big companies and corporations saying that their commitment is to ensure food for everybody through the manipulation of some seeds.

So could you share with us a little bit your ideas about what is this issue about seed sovereignty and food security?

So my own learning, of course, has grown the longer I worked with the seed. I hadn't imagined that that would be my work. My work was, this is my work was point of theory.

But I started to work on agriculture when I witnessed two disasters in my country. One was the place, the region where the Green Revolution, which is the word for industrial agriculture, it was first implemented in the world was Punjab in India. Punjab means the land of five rivers. And in a few decades, not even few decades, in one decade, the soils had been finished, the water had been finished, the diversity had been finished. One crop was only rice, one crop was only wheat. And these were the new seeds of the Green Revolution, bred for chemicals.

There's a cancer tree that started to leave Punjab because of the use of chemicals. And that same year, a pesticide plant leaked pesticide until thousands of people in the city of Mubad. And by the end of that year, our Prime Minister was assassinated. And I said, why are we doing food in Sweden? That's killing so many people. So I went into the roots of what is the industrial agriculture system? Where do the chemicals come from? Founded the chemical come from in Hitler's Germany, that the companies that are today's agrochemical companies are IG, carbon, standard oil, you know, on sand to buy it together in the war and now together again.

And then I was in mind. Powerful, huh? Powerful companies. And then I was invited because of this book I did on the violence, the Green Revolution, I was invited all over the place because I think the first book on the ecological impact of the Green Revolution, there'd been others on the social inequality. But this was the first one on ecology. I was invited to a meeting on the new biotechnology, where the companies were there. And they laid out, they said, we're not making enough money from chemicals.

Now we must make money from the seed. And the way to make money from the seed is use genetic engineering, the tools which have been evolved in the public system, and use genetic engineering to take patents on seed. Because now we will claim that we made something new. We've invented the seed. That's why you don't invent a seed. Seed is the continuity of life. Seed is evolution. Seed is thousands of years of breeding. You don't invent it. And they said three more things. First, they said, by the turn of the century, we'll only be four companies controlling food and health.

But these were the poison makers now wanting to put raw food and health. Second thing they said is, we have to write international laws that make it impossible for farmers to save seeds, so that we have a global market for seeds. And we will create intellectual property laws that make seed our intellectual property and forbid farmers from saving and sharing seed. I said, but saving and sharing seed is our ecological duty. And I will continue this. So I flew back to India and said, I gave my water work and dam work and forest work to other colleagues. And I said, I'm now going to save seeds.

And since that time to today, of course, I've learned much more than I knew of that. That time, my response was ethical and ecological.

Seeds and plants are our relatives. They are not our inventions. Seed and plants are not machines. They are the embodiment of life itself. And therefore, and saving and sharing seeds is the foundational right and duty. And seed is a common. So these basic principles is what led me to seed saving. But the more we save seeds, the more we learn from the seed. Number one, that native seeds actually give you more seeds. The family of this is the year of millets. And they used to be the forgotten foods that they kicked out of the agriculture model because they were black. So black is, of course, inferior.

They had small little grain. And it was difficult for the industrial readers to work with this. So they banished the millets and we started to work with the millets. This year is the year of UN year of millets. We're going to be doing a festival on millets in a few days. And the women who save us, the seeds will be there. What we realized is one seed can make a million seeds. That's what the millet means, million. That's why the family of crops is called millets because of the million seed, million of the latter, which is 100,000. But every seed, no seed produces no seed.

Every seed produces more than one seed.

We had a mustard plant last season, 1,000 seeds.

One mustard seed, a tiny mustard seed gets you a thousand mustard seeds. So it said that seed is renewability, seed is multiplicity, seed is abundance. And here are people wanting

to create scarcity. From one seed, no seed. Not only are they saying no seed by forbidding farmers to save seed through patterns, they're saying no seeds through technology. The technology of the terminator technology, of absolutely terminating the renewability of the seed. Another thing we've learned since that time is industrialism has bred seeds for more, for modification.

And commodities are measured in weight.

So this much kilograms, it's measured in yield per acre.

What gets out of the land, what gets out of the farm? But what matters in food is the nourishment, it brings us. What matters is nutrition. So we said yield per acre is misleading because it doesn't tell you anything. What's the state of the earth? How healthy is she? How much biodiversity do we have? How many butterflies are on the farm? How many earthworms are in the soil? It doesn't tell you the state of the farmer. It doesn't tell you that the more the food is commodified, the less the farmer earns.

But worst, it doesn't tell you the quality of the grain that came from the seed. Our research in Avanya, we've done two revolutionary things. One is we said, we will not measure yield per acre, which tells you nothing. We will measure nutrition per acre because that's what nourishes us. And our work has shown that the more the biodiversity, the more the nutrition per acre. And therefore, protecting biodiversity and growing more food is the same process.

So far, we've been told, create monocultures for more food. But that's not food, that's a commodity. 90% of the corn and soy of the world goes for biofuel and animal feed. It's not feeding the world. Therefore, the argument we see the world is false. We've now started to measure the nutrition within our old seeds. And native seeds outdo all the industrial varieties when you measure the nutrition within them. And when you have a diversity of corn or a diversity of rice, then all the different varieties are giving you different nutrients.

And you have a totally balanced thing. So we have to shift from yield per acre to biodiversity. We have to shift from trade and commodities to nourishment and nutritional security.

Thank you. What to say to this argument that soil is degraded?

We need to address pests. And therefore, we need to use chemical fertilizers in order to produce big quantities of food to people around the world.

There's a strong argument from some groups that are making a case about that. How do you respond to that?

Well, because my own journey in this field began not by training, by the boys in cartel, as I call them, but by seeing what is happening to nature, what is happening to community.

I realized that, A, poisons and chemicals are just not needed because they don't do the work. When you put synthetic fertilizer in the soil, you actually destroy the soil's fertility

because the soil's fertility comes from the soil organisms in biodiversity in the soil. And the more you take care of the soil through ecological means, but in regenerative means, organic means, the more these organisms grow. And through the organism, the nutrition grows. We've done a comparative study of 20 years of farms that have gone chemical and farms that have gone organic.

On the organic farms, the nitrogen went up 100%. Living carbon went up 100%. Sink went up 44%.

Magnesium went up. All of these micronutrients and tree sediments that are so vital for our health. On the other hand, in the chemical farms where they were applying nitrogen fertilizers, nitrogen went down 24%. And all the nutrients have declined.

In the organic soils, the fungi, the mycorrhizal fungi, which is the richest part of the soil, it has increased 360%.

It's gone down in the chemical soils. So when we look at the soil of the soil as the soil web of life, we find that every time you apply chemicals, you actually destroy that web of life. And therefore you destroy the foundations of production. But same applies to insects. Like we have diversity in the soil, we have diversity above the ground. And we have lots of insects who are in a balanced relationship with each other. One insect eats another insect and that's called the best predator balance. And they keep themselves in balance. When the British Albert Howard was sent to India to improve Indian agriculture in 1905, he arrives in India and sees the soils are fertile and says, I can't teach the farmers.

I will learn from them. And he learned organic farming from them and wrote the book Agricultural Testament. He looked at how many insects were in the fields, but he said, there's no pest damage. And he said, no one has taught me that insects are not pests. We are taught that every insect is an enemy. You must exterminate. So he said, I'm going to make the pest and the peasant my professor. So he wrote that book, The Agricultural Testament. So you wrote that book, The Agricultural Testament. So how are pests created?

They're created when you make a monoculture. They're created when you make big plants with chemical fertilizers. They're created when you spray poisons. So they're all the beneficial insects which keep pests under control are killed. And then the pest becomes a super pest. And that's where the resistance starts. And it's happening also in BT cotton, in the GMO cotton. The same thing of resistance is happening. So synthetic fertilizers destroy soil fertility.

Toxic pesticides create the pest problem. And when a technology fails to do the job it was meant to do. And at the same time destroys the biodiversity of the earth. It is time for human beings to wake up to better ways of farming. And better ways of farming are knowing that the earth is living. We have to work with the earth. The earth has laws. She has the law of biodiversity. The earth never works with monocultures. So don't grow monocultures. The earth never works by just taking and taking and taking.

She works by the law of return and recycling of everything. There is no waste in the earth. If we work on those two principles, we can do agriculture that produces more food,

regenerates more biodiversity and actually reverses climate change. The data is now coming out. 10% farms going organic can actually reach the goals that aren't being met by any other technology.

Yes, we need to be very mindful and cautious, careful with the narratives we hear around this. Because sometimes if we hear an advertisement from some companies, we could believe on something else. So it's very good to hear you talk about this so clearly. Let's talk about ecological civilization.

There is a group of people, individuals, institutions, talking about ecological civilization. We know also, we have heard that the government of China has made a call for China to contribute to the building of an ecological civilization. So I feel it's a really important moment in which we could bring together different views, east and west, and view around ecological civilization. To have a vision and an aspiration. So I would like to ask you, what is an ecological civilization for you? How would you define it?

For me, ecological civilization is a democracy. Ecological civilization is the recognition that we are part of the Weber plant. We are not outside the web. We are not masters of the earth. We are not owners of the earth. And we definitely should stop the war against the earth. Because as members of the earth family, making peace with the earth, is not just respecting the rights of the earth, it is ensuring that art.

Future is sustained because we depend on the earth. Ecological civilization means that we elevate the values that are organizing principles of our civilization.

I want to just quote two little quotes. When Gandhi was asked what he thought of western civilization, which at that time was an industrial civilization. When they asked, what do you think of western civilization, he just smiled and said, it would be a good idea.

Meaning that it's not a civilization because to be civilized is to be organized for higher ends. The higher ends of leading the earth more beautiful. Higher ends of not polluting the earth, higher ends of living as a community, respecting other human beings. Now, a system that is based on profits and profits and profits alone, and will commit any violence in order to make more money, is not a civilization, how he was so right. But then the Tibetan prime minister of the Tibetan government in exile, he used to always come and teach at our earth university.

Like you have an earth university in Costa Rica, our little Navdanya has a little earth university, we will learn lessons from the earth. And he differentiated between two in words in Hindi.

He said, Sanskriti is that which holds things together. That's civilization. Civilization binds.

It creates bonds and relationships. And Vikriti is the opposite. That which destroys. That which fragments. So what is being called western civilization today, is a fragmenting of the world, a separation of humans from nature. Separation of humans from humans. Separation of the earth from each part of our parts. What is genetic engineering but

reducing a living organism with billions of genes, complex interaction, reducing it to one gene to be moved around and owned as intellectual property. So it is the ultimate fragmentation.

And ecological civilization then, is that which holds us together as one earth family and one humanity. So it brings out the best of human values. But in those human values, we have to bring out the best of our relationship with an in the earth. That to me is ecological civilization. It was brilliant. I love the way in which you put this importance of us to see the human and nature as being part of the same in the core of ecological civilization. So you would say that the key element or key essential ingredients to help us move towards an ecological civilization would be an expanded consciousness of our interdependence with one another. Yes, for sure, an expanded consciousness of knowing that we are not separate from other beings. They make us. The tree makes us, gives us our breath.

The gut microbiome makes us. We wouldn't be alive without those hundred trillion companions in us. So we need to give up anthropocentric algorithms of mass tree of superiority of separation and move to ecological ones. Because you know, money is not the currency of life. It's a product lock, lock created private property, but lock also redefined currency into money before that currency was the flow of life.

And then the currency of life is life itself, but life flows called Pantera. The amazing Greek phrase of everything flows all the time. Nutrition flows, salt to plants. And to the animals, water flows in the big hydrological cycle. Bread flows, love and relationship flow. So ecological civilization then is a holding together through these flows and they're integral. And the fragmentation comes from a consciousness that has your own energy. And the fragmentation comes from a consciousness that has reduced the world, not just to pure material existence without relationships, without life, without spirituality, but was it has taken materiality into machine yet, you know, that this world of material is only machines.

And this reductionism of a living world losing itself organization, losing its capacity to self-regulate, is to me the biggest scientific error that has been made. Because that has prevented us from knowing the harm we cause, but it has also prevented us from engaging in the regeneration we can do. The other is the issue of consciousness of us as one earth family. My country talks about it as Basudheva and Basudheva, the family of the earth. And the elaboration in ancient Veda says, anyone who thinks of other beings as less or higher, or as strangers or friends, is a petty mind. It doesn't have a consciousness. It's a shallow mind.

An elevated mind with a high consciousness knows that the whole world is one fact. And therefore, in family, connected to love. But in your part of the world, Pachamama, yeah. She is the family, she's the organizer, she's the value giver, everything. Turn any part of the world.

The consciousness is in all indigenous cultures of an ecological civilization. And I think what we have to now tap is both the wisdom of indigenous cultures as ecological civilizations, as well as the new sciences of life, which are emerging, including my own

field of quantum theory. In quantum theory, everything flows. There's nothing like a static particle.

It's potential unfolding all the time. And as David Bohm said, the unfoldment in the implicative order is the unfolding in the explicate. Same as in the seed is holding the tree. The seed is giving you the wheat plant. It's in that little grain. Where does that pattern come from? That is the understanding. But just like their patterns in the living world, their patterns in living societies and cultures that hold people together, that replicate the values that make us truly human by being truly off the earth, being spiritual beings.

We have been reduced to material beings and now we're being told, no, you have to become subservient to the machines. This is this madness in Silicon Valley called transhumanism. That we are just like they turn to our seeds and say, you're inferior, we'll improve it. Then they turn to animals and then torture them and say, we improve you. Now they want to improve the human being by making our humanity disappear. And this is the time where our consciousness has to constantly strengthen our ability to say, no, we are off the earth. We are alive. We have a consciousness and our consciousness is a common consciousness that flows to the universe.

Mandana, should we envision an ecological civilization in singular or plural civilizations? And why? Or should we envision one common vision of ecological civilization and allow these contextualizations of civilizations in plural? So the question is, should we envision ecological civilization or civilizations in plural? What do you think of that and why? But I think we have to think of civilizations like we think of life. Ecological civilizations are living organisms that have the capacity to evolve, adapt. And the most important part of an ecological civilization is that every part of it is alive. Just like in a living organism, every part of the organism is alive. In a machine, nothing is alive.

So machine is assembled from the outside with inert parts, which have been mined from the earth, but have now lost their vitality.

And there's a bit of chips and there's a bit of metal and there's a bit of plastic and petrol. And it's all assembled together. But living systems are self-organized, not just in the whole, but in every part. Every cell in our body is a self-organized entity, working in harmony with all other cells in beautiful balance. And I want to again come back to the fact that we've been made to think in terms of this ideology of external assembly of the machine and in terms of a top-down organizing. But that's not how life works. Life works through internal self-organization. And life works with complexity of diverse elements.

Being self-organized, every molecule self-organized, every cell self-organized, and the organism of which they are part of self-organized. And I want to share with you just again David Bohm talking about the enfoldment. But my dear, dear friend, May Wan Ho wrote that individual is a distinctive enfoldment of the environment. The environment is in us. So each individual is not only constituted of others in its environment, but also simultaneously delocalized, non-local, over all other individuals. That's how we to think of ecological civilization. So each civilization is unto itself. But technological civilizations emerging in different places, will of course be an ecological civilization of unity in which the basic principles will be shared.

The expressions will be unique to the particular ecological civilization. So when you ask, is it singular or plural? It is plural and singular.

It's plural and singular. I love that. So we are coming to the last question and I really want to express my gratitude. I feel very inspired. But our last question or portion of this conversation is around education. Education and awareness, expanding consciousness, of course, is very important. So what role do you think education should play in building ecological civilizations? How would you reimagine education, kind of education, that the higher purpose is for ecological civilization? And how do you think, if you think there can serve a role in this eastern western dialogue of civilizations around this vision of moving towards an ecological civilization?

I want to come back again to indigenous cultures. In indigenous cultures, there was never a time where you were not going through education. Every bit was learning, every day was learning. And part of the role of the elders. So the elders were teachers. Elders were teachers in the values that you need. And in no indigenous culture do I witness the young being taught, you must do this, you must do this, don't do this. They're constantly learning from experience and my own education for my parents was this. Parents taught us, never say no. They never said no to us.

Just through an example, teach the values. Secondly, we've been made because of the way western education has evolved. It's within brick and mortar. It's in buildings. Whereas in cultures like India, the best civilization came from the forest and Tagore created a university of the forest and the Schumacher College in England, this is by Tagore. And Tagore in this essay says, from the forest, we really learn the values of democracy. Because in the forest, our diverse being working in harmony. And each being is leaving space for all other beings. That's democracy. Whereas in the western education system, it was become a club. Now, everyone's being told you coding as if there's nothing else in life except coding. Kids, six year old kids are being taught coding. They're not being taught how to garden.

They're not being taught how to love each other. They're not being taught compassion, being taught coding. So I think we've got to return to the rules of education, which is edukare, which is cultivate the best potential. And for that, we need pluralism in our learning systems. And that's again, why I built an earth university that is linked to the Schumacher College. We need different ways of learning in different contexts, so that the multiplicity of values that make us full human beings on a full earth can be learned.

Well, my gratitude. Thank you so much for this very insightful conversation and sharing your thoughts. Certainly, earth democracy and the earth try to share some very key ideas and principles related to environmental sustainability, social justice, and the well being of people on the planet. And I think it's a very inspiring conversation that makes the link, offering the earth democracy and the values articulated in it as a good basis for us to envision an ecological civilization. Thank you so much for being here and for joining us. Thank you so much. And good luck. Thank you very much. Hope to see you soon. Bye.

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