

Ricardo Salvador
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Narrator

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Interviewer

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Ricardo Salvador—RS
Ron Kroese—RK

RK: It is November 17, 2015. Today I have the pleasure of interviewing Ricardo Salvador, who has been a leader in sustainable agriculture and food for a good three decades or so, much of it in the Midwest, and now with the Union of Concerned Scientists. In fact, his title today is director and senior scientist of the Food and Environment Program for the Union of Concerned Scientists. So, Ricardo, I like to start out with asking folks how did you get interested in the whole issue of food and agriculture, even from the earliest age, your own upbringing. I find it a very fascinating part of it, and I'd like to hear your story.

RS: OK, sure. I was born and raised in southern Mexico, and in a city environment, so it would have been difficult to predict that I'd eventually be interested in agriculture and in food issues, but I'm part of the second generation of people with a farm background that during the past century began to move away from the farm and began to settle in cities, so that my parents both came from agricultural families, but they were the first generation that went away, went to college, settled in cities. Which meant that, then, when we visited grandparents and uncles and others, that agriculture was still a very dominant part of their lives, and so I was always aware that on both sides of the family there were agricultural activities. I grew up in a household that was very intellectual, so both of my parents were college graduates. Books were around, all over the place, which for me meant that I was exposed to a lot of ideas, and even though I was raised in a place in central, southern Mexico, where you might not think that I would get exposure to a lot of ideas from out in the world, I actually did, and felt like from a very young age I was very exposed to big thinking and big ideas, and we had lots of awareness. My dad, in particular, would always make sure that we talked about current affairs. So the way that food and agriculture came up for me was sort of through the side door. And the reason is that I would occasionally be brought to the United States to visit one branch of our family, because my mother is a Californian, and her family, at least one branch of the family, had a very good business, first in dairying, and then in forage production, and, ultimately, in agricultural supplies and transportation. And they did very well for themselves—a very hardworking people, very smart businesspeople, and I noted that. Most of the time we would visit relatives of my father's in southern Mexico, where they were self-provisioning farmers, and eventually went on the migrant trail. Life was very different for them, but I knew that they were just as capable, just as hardworking, just as ambitious as the family that I had in California, and it was very clear that they were just people that were born in the wrong place and had totally different circumstances.

And it took me a long time to sort out why those differences existed. I am talking to you here about late '60s and early '70s, and so I'm anywhere between eight years old and twelve years old when I'm noticing these sorts of things. When I eventually caught on to some of the reasons for this differential in the fortunes of my family—and I'll repeat that these are people whom I cared about a lot and had a lot of empathy with them on both sides of the family—I realized that there was just a whole lot of social injustice that was involved. So my dad's side of the family is a Native American family, and in Mexico, the Native Americans have been traditionally repressed, to this date. And so that feature of the conquest of Mexico never went away, so native peoples were banished to really the least hospitable, least desirable areas of the country, where making a living was very difficult. But that became even worse during the Second World War, when there was a specific industrialization policy in Mexico to drive people from the rural countryside to create a labor force for factories. And so the way the government managed that was not to put schools in rural areas, not to put clinics in rural areas, instead, invest all that in cities to create the pull. So I saw that there was a lot of injustice in that, both in racial discrimination against my father's family, as well as in specific policies to drive them off the land and to undermine their livelihood. And at that time in Mexico in the early ... well, in the late '60s to early '70s, there were guerrilla movements among the native population and the rural population—not all of them were natives. And so that actually appealed to me, because I thought that this was ultimately the way that you would really deal with a lot of this injustice. So I was driven to all of these issues out of a sense of moral outrage, and it just happened that people on both sides of my family who demonstrated to me that there was great structural inequity in society were in agriculture. There's an interesting, very real story about why I ultimately focused on agriculture, and that is that when I got through with high school, I was very influenced by everything that I just described to you, and I said to my father—I basically just announced—that I was done with school, that I had put up with all the education that I needed, and that I wanted to go back to the family's village and pitch in and be of help. My father, you know, he nodded his head like this, he was very thoughtful, and he said—well, I can understand you; I know what you're thinking, and I know that you want to help your family. But why don't you consider this: If you go as you are now, you're going to be one more mouth to feed and one more person to take care of. Because you want to think about what you can contribute to your family, so they're farmers, and they're poor. So why don't you study medicine? Or they have a lot of problems with land tenure—why don't you study to become a lawyer? Or why don't you become an agronomist? So, that period of time, now maybe the middle '70s, was the heyday of the agricultural revolution, the green revolution in Mexico, which was one of the birthplaces of that concept of the green revolution. And everybody knew what an agronomist was, and in Mexico that role was very different from the role of an agronomist in the United States, where you have to begin by explaining what that career is. Because in Mexico everybody knew what an agronomist was, and an agronomist in Mexico was a change agent. Before you could begin to work with people in villages under agricultural issues, there were all kinds of infrastructural and legal issues that you needed to help farmers solve. So do they have legal deed to their land, for instance, before banks would even look at them to loan them money. And did they have access to sanitation? Were their children going to live through to adulthood? Did they have access to schools? So agronomists had to deal with all of those things and solve them before farmers would pay attention to them on the technical side of things. So that kind of career appealed to me, and probably the shortest way of abbreviating what happened afterward was that the family moved to the border of Mexico and the United States, Ciudad Juarez, Mexico and El Paso, Texas. Because I was persuaded by my

father's advice to study something that would actually be of use to my family, I actually looked how long each of those careers would be, and it seemed like the agronomist was going to take me the least amount of time. So I got into agronomy by mistake, because I thought that that would be a way to help my agrarian family. And the reason why that was a mistake is that I now realize that the ultimate thing that I wanted to deal with was social and racial injustice. But it took me a long time to figure that out. In the meantime I studied to become an agronomist. And what made that mistake worse is that I, by that time, ended up in the United States and studied agronomy in the United States, where the concept of an agronomist is very different from what I just described to you. It's purely a scientific career. So my early days in the profession, and actually I would say to this day, have been reconciling that what I want to do in life is to address things that are wrong, particularly for rural poor farming and indigenous populations, but that my tool is that I'm a scientist. And I, by complete accident, acquired knowledge as well as credibility in the field of agriculture and as a scientist. So that's my route to attempt to deal with these issues that motivated me from the time that I first had conscience.

(9 minutes; 58 seconds)

RK: Very, very interesting. I know that there would be a number of people, including me, who would quarrel with the idea that you made a mistake. We're grateful for the path you ended up taking, because bringing that aspect of social justice into agriculture is something that's very necessary, and, I think, under-appreciated in the American landscape, you might say. So it's very important that you did that. I remember reading one thing you wrote, too, that really for your family you had the irony that you were ... on your father's side of the family, they could have been working for your mother's side in California.

RS: Yeah.

RK: That was a kind of contrast in your upbringing.

RS: Because up until this day—and everybody who's acquainted with the structure of American agriculture knows that there's this underside where there's exploited labor, without which fruit agriculture, vegetable agriculture, dairy agriculture—all of the labor intensive function of agriculture would be impossible without migrant labor, and that's because of what we choose. Not because of what we can, but what we choose to pay for labor in agriculture. So that's absolutely true. The migrant strain in California is not completely native rural southerners from Mexico. Now there's quite a bit of a stream from Central America and from the northwestern part of Mexico as well. But it is heavily, heavily indigenous and from Oaxaca and Guerrero and Chiapas, other states like that. My family is from Oaxaca, and it's literally the case that when I go to see my family now, the Mexican side of my family, I can find as many of them in California, for the reasons that I've expressed—they were not encouraged to remain in their country; they were discriminated out of their native land, where they had been for, at the very least, 5,000 years that archiologists can trace them to as identifiable Zapotecs, culturally. And during the times in which we live, what the Spaniards could not accomplish, which was to displace them, was accomplished by industrial policy, and so now they're the labor force of California agriculture. So that's where I go to find them, and I find them working in the back of the house of restaurant industries and agricultural industries. I have uncles that retired and

eventually became foremen, really trusted workers with supervisory responsibilities on big agricultural operations in California. So they literally could have worked for really big-time farmers like my mother's side of the family in California.

RK: This is a little bit of a diversion, but with so much of our food coming from Mexico these days, is it changing or getting any better, or ...?

RS: Yeah, it's not getting any better. There's ... what you're referring to, particularly, is that there's a lot of fruits and vegetables that are being grown in Mexico and then exported, particularly during the winter, to the United States. So the exploitation of these very same people occurs in Mexico, and a lot of the very same transnational food companies are running exactly the same kinds of operations there, and they can exploit the laborers more there, because there is absolutely no oversight, no protections whatsoever, so it's really actually worse within Mexico than it is within the United States. So it's exploitation, regardless of how you look at it, and pretty much the same dynamic occurs. And that's pretty much concentrated in the northwestern part of the country, which has a Mediterranean climate very similar to what California has, and so it's the same situation, unfortunately.

(13:47)

RK: Well, the way a lot of us got to know you, when working in sustainable agriculture, began with your work at Iowa State, so I'd like to have you talk a little bit about how you got there, what you did there, then maybe move on to Kellogg.

RS: Sure. So that was a little bit of meandering. So, as I mentioned, my father's side of the family—even though I've known my mother's side of the family, it was because we would visit for days or weeks at a time in the United States—but I was fully raised and grown to a teenager in southern Mexico, so that's really the side of the family that I most identified with. And for all of Mesoamerican native peoples, the axis of life—it is not an overstatement—is the corn plant. So from the moment that I determined that I was going to study agriculture, the corn plant was really what agriculture meant to me, because everything in the agricultural system in Mesoamerica is structured around the significance of the corn plant. There is a lot that we could delve into, but that means that it's significant historically, culturally, socially, nutritionally, and then agriculturally. So it isn't that the corn plant is the only thing that's featured in the system, it's that everything in the agricultural system is structured around that plant. So I wanted to know as much as I could learn about corn. That was my whole objective when I began to study agriculture. And I actually did my undergraduate at New Mexico State University in Las Cruces. That was my introduction to both American culture and to agriculture, where it was divorced from the people concerns. It was literally divorced from the people concerns. I explained earlier how in Mexico everybody knew that an agronomist helped rural people solve problems, and that meant all their problems, not just their agricultural problems. But in the United States it was very clear that you didn't even deal with people, period, that agronomic education was just about nutrients. It was just about soil. It was just about seeds. And you were really out of place if you asked questions that related to sociology or to politics. Probably the best example that I can remember to demonstrate that to you is that I remember in an introductory soils class, my first semester at New Mexico State, I had a soil fertility professor who had white board like this, or it

was probably blackboard, and was explaining the fertilizer response curve, which is generally an increasing curve, and he pointed out the features that soils have native fertility, so you don't start at zero, run the y axis, and then you get to a point where the benefit of a fertilizer flattens out. He had his back to the class when a student in the back of the room said—and what are the economics of that? So the student had been observing, and it was a question most of us had on our mind, I'm sure, because I was thinking exactly the same thing—fertilizer costs and crops will have certain value, so even though the biological response had this particular plateau and response, if you factor in the cost of the fertilizer, are you really spending your money well if you apply that much fertilizer? Maybe less fertilizer will give you the best return. Logical question. And this agronomy professor, who called everybody “Sunshine,” didn't even turn his head. He just sort of just cocked his head a little bit to the side and says, “Sunshine, that is economics. This is agronomy.” And he turned around and just kept going like the question had never been asked. So the lane of what you studied in agricultural science was very, very narrow, and that was just very frustrating for a lot of different reasons. But I finished that career, and looked for a place where I could study corn. I could have ended up a lot of places, but I was very fortunate that I ended up at Iowa State. I never dreamed that I could land an assistantship at Iowa State, which I really needed, and it just worked out—I won't bore you with the details—but it worked out that I ended up as a graduate student at Iowa State, and it was really the best place for me to have been, because that was a place where I could learn everything that I wanted to know about corn. And one of the reasons why it was the best place for me to land is that I happened to land with a major professor, who is the person that controls your destiny in graduate school, who basically just said to me—I can see you're interested in really a broad set of issues, and as long as you don't get me into trouble, as long as you complete all your course work and keep your nose clean, then you can do whatever else you want above that, but take care of that first. And that was a great deal, because I wanted to learn the agriculture; I was highly motivated. But I needed to get that done so that then I could study the history, the sociology, everything else—the philosophy that I wanted to study. So it was just a perfect place. So then what you're asking about, Ron, is that I arrived at Iowa State as a graduate student in 1980. Because what I was interested in was a broad set of cross-cutting issues that included social justice, that included the environment, because I'd seen how denuded the environment was in the mountainous areas of southern Mexico where indigenous people had been forced to live, so I was very interested in environment. And, of course, productivity was key. And all of those things put together did not have a name. There were not people that formally studied that. Of course, today, it's everything that we include in sustainable agriculture, that's what's back here. But back then there was no name for it, and I had to cobble together my learning around those issues. And for the reasons that I just explained, I had carte blanche to do that, as long as I kept my nose to the grindstone and studied my agronomy. And I studied with superb agronomists; I was really fortunate to really be educated and influenced by people that really, really knew their stuff, which I carry with me to this day. So having a degree from a four-square institution like Iowa State, and then being exposed to Midwest agricultural systems makes all of these issues very, very real, and also gives me a lot of background knowledge, credibility, to talk about big-time agriculture, but the whole perspective that I came with from the very beginning was this system needs to be different than what it is. And 1980 happened to be the time when all kinds of stuff began to develop for what we now call the field of sustainable agriculture. So I got to Iowa State at the time that Garth Youngberg put out a report on organic agriculture. He was in the Department of Agriculture, and I found out later, just a few years later, that he had been working together with Robert Rodale to

actually do that research, because they believed that the Department of Agriculture had a public mission to generate information for farmers that wanted to produce organically, and that department had not been fulfilling its mission. So together they came up with this idea that they needed to make the case for the USDA to look at how valuable organic agriculture could be. It was a very thin publication, but it was a nice case study. And land grant universities, for a number of reasons, were essentially the crucible of the status quo, so that's where the technologies for the big, successful industrial agriculture had been researched and developed and extended to farmers. They saw everything that I thought needed to change as a big success story. So it was a difficult thing to be within the belly of that beast and appreciating the opportunity and learning everything that I could learn there, but at the same time being persuaded that almost everything that they were teaching and advocating was wrong. So when you talked about reports like Garth's work at the land grant university, all the established faculty critiqued it, they looked down their nose, actually laughed at it. One of the—in fact, I can name him, a professor by the name of Charles Black, who wrote, literally, the textbook on soil fertility, did a critique of this and started out with the most petty assessments. Charles Black was an authority, a real consummate scientist, but he could not take this idea of organic agriculture seriously, because his whole career had been developing the whole science of inputs, particularly fertilizers. So I remember that he wrote a very critical report, started out with pointing out that these people knew so little that they didn't even know what the word organic meant, and started talking about the difference between organic chemistry and so on. But anyway, it just showed me that the idea was just not going to be taken seriously in status quo land. Actually when you talked about these sorts of issues you went behind closed doors in that era. You didn't talk in the hallways or you looked to see who was round. It was just very inhospitable, very hostile to the ideas of today we call sustainable agriculture. So I led this kind of parallel existence, because I was drinking the mother's milk that I needed in order to get the imprimatur of the institution and get the degree. So I was leaning all about high-production agriculture. Yield is everything; you do whatever you can. So I was learning that, but at the same time there was this small group of students, primarily international students like I was, who saw the world very differently, and so we just began to develop our own informal colloquia and discussions and reading groups, and that's how we kept a sustainable agriculture—I guess I would call it the ethos or the interest group—going. So I was able to develop both of these interests at a time when that organic agriculture report came out. It was critiqued by people like Charles Black, who founded an institution specifically to counter that sort of development, which he called the Council for Agricultural Science and Technology (CAST), which still exists. Black, as I say, was a consummate scientist, but so politically unsophisticated that he didn't realize all of the conflicts of interest that he generated by basing CAST on the campus of Iowa State University and by asking all of his friends in the industry to sponsor the publishing, the real costs. And he had no nefarious purpose, he just wasn't politically sophisticated. He didn't realize that all of these things would put him at odds with having an independent position, which he said that he had. So I observed all of this. I was in that milieu observing how all of these folks were reacting to this. So they got together and published a response to another seminal publication of the era, which was by Wes Jackson and a number of friends, supporting the development of what we now call sustainable agriculture, which was called *Meeting the Expectations of the Land*. So there was these series of books and rebuttals that were being written during the 1980s when I was a graduate student that put me right in the middle of this culture war and actual economic war over what the dominant paradigm for agriculture might be in the future for those of us who would emerge and then become the leaders

and the people that populated the faculties of the universities. So it was just the best education for the sort of world that I'm in right now, because I simultaneously learned from both good examples and mistakes that people were making that this was going to be a political undertaking, and that it wasn't just about the science. But that if you did have the science, that there was going to be an obstacle to credibility within the status quo, within the establishment. So it turned out to be in the end that, even though it's not the path that I would have chosen consciously, that having a good agronomic education has given me access to conversations where I normally would be on the outside just being a critic. But being on the inside understanding the worldview, understanding the language, has been really helpful, I think, to get beyond where I might have been as just a pure critic. So that's how I ended up at Iowa State and that's how that formation as a graduate student helped me eventually in the '90s. In the late '80s I became a faculty member at Iowa State. That was the era when, due to the work of a lot of people that you and I both know, and actually including yourself, at that period of time, programs such as low-input sustainable agriculture began to emerge out of the Department of Agriculture and began to make inroads at land grants, because now those programs came with money, primarily for extension agents. And one of my first things as a faculty member at Iowa State was to argue that we needed to be a part of those programs and what eventually became the SARE (Sustainable Agriculture Research and Education) program and to actually devote people and get them trained in those areas, and I can tell you the resistance and the cynicism and the literal culture clash that ensued as a result of that. But I was in the middle of that, and for all of the reasons that I have told you, my touch points were not within the university. The university resisted all of this. So my touch points were outside of that, farmers that were attempting to do the right thing. So Dick Thompson, right outside of Ames, was a really positive influence in this direction.

(23:50)

RK: A great farmer.

RS: Yeah, amazing human being as well as farmer.

RK: Yeah, the founder of the Practical Farmers of Iowa.

RS: That's another story—I was in the room when the initial conversations with Iowa State developed that led to the creation of what became the Practical Farmers of Iowa. I looked at places like what Chuck Hassebrook was doing with the Center for Rural Affairs. George Boody and you folks up here with the Land Stewardship Project, what eventually became the Minnesota Project. I mean, there were just a lot of folks that were outside of the system that were not waiting for the land grants to do the right thing, but just were developing a sophisticated approach based on practices that worked, as well as knowing that this was political, and therefore there needed to be a policy side to it. So that's actually how I came into this arena. I wasn't part of that group of people outside of the university, but was within the university noticing that those were our allies outside.

RK: Well, and I remember too from the outside looking at you as an ally on the inside.

RS: That's good to know.

RK: As you were talking, too, another thing that ... a lot was happening, like you say, around 1980. In early '81 the National Agriculture Land Study came out, too, at the same time, and Iowa featured, kind of unfortunately, in that study, with the figure two bushels of soil were being eroded for every bushel of corn grown. And that woke quite a few people up and was in that mix, too.

RS: It did. It was part of the whole controversy. One of the signal points that I should remember that was also ... it wasn't coincidental, but it was really well-timed for my career is that our department head at the time that I graduated is an individual still living who's a formidable scientist by the name of John Pesek. He was the department head of agronomy at Iowa State and, as he would tell you himself, he was part of a generation that created this status quo after the Second World War—he was a specialist in soil fertility and part of the generation that defended it, assiduously. But as he tells the story, and as I saw it—I had a front-row seat to it—in the '80s, partly as a follow-up, the National Academy of Sciences, partly as a follow-up to Garth Youngberg's original work and all of the resistance that grew up around that, the National Academy of Sciences commissioned a report on alternative agriculture, and to make it credible, of course, they got leading scientists to be a part of their panel, and Dr. Pesek was on that panel. And he, himself, will tell you he went up to it as an open-minded scientist, but he was part of the generation that believed that organic agriculture was part of the past and scientific agriculture had evolved beyond and above where organic agriculture had been, what we now call organic agriculture, which to him was just the antiquated agriculture that his parents and grandparents and every other preceding generation of farmers had practiced. So he saw the application of fertilizers and science develop what we now call the industrial agricultural model as great progress. So he went onto this panel with that mentality. But he's a scientist, and so the case studies that they looked at, which included Dick Thompson's farm we've talked about, and many other farms from across the country, demonstrated to him that there were viable alternative forms of agriculture that could be profitable and could be good for farmers to thrive and didn't depend on this linear system of inputs. And it woke him up, and so he went as far, during the course of that experience, as becoming a champion for what was called then alternative agriculture. The report was called *The National Academy Report on Alternative Agriculture*. It came out in '87 or '88, some place around there. And that book, again, engendered a big rebuttal from CAST. Actually called it something like *A Response to Alternative Agriculture* or something like that. But this time, because our department head had said—this is at least a legitimate topic of scientific inquiry—then all of us that had been underneath the radar until that moment now could come out into the open. That's when I became a faculty member, and because of advocacy from all of the groups that I mentioned, but particularly in Iowa the Practical Farmers of Iowa, who were in the process of calling Iowa State's bluff on whether Iowa State had a responsibility and the capacity to support the interests of farmers who wanted to do something different than the dominant model. So Iowa State had said—sorry, we don't have the extension capacity, and the way that what eventually became PFI (Practical Farmers of Iowa) called their bluff was to say—what if we came up with the resources for one-half time of an extension agent—can you match us? And, of course, the university had to respond to that, and they did name an individual, somebody who had worked with Dick Thompson for quite a few years, and that became the start of what eventually became Practical Farmers of Iowa. But because of organizations like that pressuring the university about what they would do for sustainable agriculture (that term was still

not being utilized, so we would talk about alternative agriculture), then it turned out that people such as me all of a sudden became very useful to the university, so I became a faculty member when the university badly needed someone to point to that could talk competently about alternative agriculture and represent to the external world that the land grant university portfolio was broad and included the dominant stuff and people that also did alternative agriculture. And they needed someone that could teach a course on the topic, and so that's exactly what I had been wanting to do, so I taught the first course on sustainable agriculture in the land grant system, and it served both my purposes as well as the university's purposes. So it was just a very fortuitous sequence of events that the timing worked out that I could sort of explode, fresh out of graduate school, into a field that really was primed so that good things could begin to happen. So that period of time, late '80s and early '90s, we are now talking about, is when the LISA (Low Impact Sustainable Agriculture) program had reached maturity, when SARE began to emerge, when there were now some federal resources flowing to at least train extension agents. And whether they liked it or not, they at least had to be exposed to those ideas. In Iowa that was also a particular time when during the farm crisis of that era, when farmers were leaving in droves, and you couldn't deny that there was a serious malaise in farm country. There was also a huge environmental crisis with ground water quality, and it led to the formation of the Leopold Center for Sustainable Ag. So I became a faculty member in 1988. Practical Farmers of Iowa had become established as a driving force and partner to the university. John Pesek, our department head, had come out in public endorsing the *National Academy of Sciences Report on Alternative Agriculture*, saying it was a legitimate field for scientific inquiry. The Leopold Center for Sustainable Agriculture was established. Soon thereafter a federal laboratory called the National Soil Tilth Lab was established after about thirty years of one of Iowa's congressmen working really hard to get it established, and that brought a lot of what today we would call soil health specialists to Ames. So it just happened to be this enchanted time where this critical mass of people, both with an interest as well as now with administrative support for doing alternative agriculture all met in one place, so that we began to do legitimate work with the sanction of the university. Now we could officially reach out to the alternative agriculture farmers. Now we could actually go to a meeting that the Center for Rural Affairs was calling without having to hide that we were going there or working with those people. So it was a very fertile time to get into this field.

(36:13)

RK: And, I think, getting to the policy again, I think about these five people, I think they were maybe all men, legislators in Iowa, that were very important in that time, too, and wrote that state policy support for and even, I remember, they changed the name to the Department of Agriculture and Land Stewardship Project. Not project, but Land Stewardship. I remember that because I was working with Land Stewardship Project, and I thought—well, that's interesting. [Chuckles]

RS: Where'd they get that name?

RK: Where'd they get that? But they were working and managed to get that tax on pesticides, I believe, right?

RS: Exactly. It's a surcharge ... you're talking about the mechanism to support the Leopold Center.

RK: That's where I'm going, yeah.

RS: And so there's a very interesting story behind that. As germane to this, I'll just answer that question by saying that it was a piece of genius that these legislators came up with. These are just legendary figures because of how astute they were politically to be able to do this, really which was really a very adverse political situation for sustainable agriculture at the time. What they eventually did was to come up with a sort of a detente with the ... there's a group no longer in existence, although the satellite of organizations still exists, that was called the Iowa Ag Chemical and Fertilizer Dealers, so it was primarily fertilizer salesmen. They arrived at a détente with this group, which was under tremendous pressure, because the University of Iowa Occupational Health Unit had documented very high nitrate levels in surface water in Iowa that spiked in complete synchrony with when fertilizer was applied on the ground. And the levels were 21 parts per million and above, really toxic, and there were incidences of blue baby disease and just added to the black eye that agriculture had in Iowa at the time. So there needed to be some sort of a response, even though at the time people thought that it would be a symbolic or a cosmetic response, and not anything fundamental. So what these legislators did was to come up with a scheme where they agreed with a small surcharge, so small it was something like fractions of a cent for every ton of fertilizer and pesticides that were used would be levied on farmers. Here's what the genius was—it's so small that farmers wouldn't even feel it, but because those sales were so high in Iowa, it netted about \$3 million a year, so enough to do something with. The mechanism that they had was such that it was a virtuous feed-back loop. So the mission of the Leopold Center to make it politically palatable could not be political. It was defined as being an educational institution serving the entire state of Iowa. Because I was there observing all of this happening, I know that it was really leaders in the Iowa Legislature, and the University of Iowa that got this established, and Iowa State University, the state's agricultural university, was basically just heckling the entire process, saying that these people didn't understand agriculture, that they didn't have the expertise, and so what happened was that the virtuous cycle made the whole thing palatable, because if an educational process around how to make agriculture more profitable and reduce its environmental impact was successful, then fertilizer application would become more rational. Its sales would decrease, and therefore less money would be raised for the Leopold Center because there would be less need for it. But if it went the opposite direction and pollution increased and fertilizer sales increased, then the mission of the Leopold Center would be all the more important, so they would get more money. So they didn't raise a special tax. It didn't become something that was even controversial. There was a big, clever way of raising money for the center. And then what the Center did was, a very clever move, was to hire possibly the only person that could have led that Center in a very fraught environment—an Iowan, specialist in soils and water, by the name of Dennis Keeney, who was a professor at the University of Wisconsin. He looked conventional, he looked very safe. He was brought to lead the center, and no one factored in that he actually intended that he was going to learn what sustainable ag was and he really was going to pursue the mission of the Leopold Center. He was a consummate scientist who was really open-minded about what he was intending to do, and really was on a learning curve for sustainable agriculture. He didn't come out of the fold of advocates for sustainable agriculture, but he realized soon the environment that he was in, and he

did a very smart thing, one of the smartest things that center ever did, which was to say—we have to get the faculty at Iowa State University to understand that there are opportunities for them. There really are questions around sustainable agriculture that depend on generating science. So Keeney did two things. One is he said the majority of funds are going to be spent externally. We're not going to become a big center with a fancy building and a big staff, we're going to spend most of our money on our public, on the audience. And the audience initially was the scientists at Iowa State University. They couldn't say that at the time, but that's who the audience was. So they did what scientists understand, which was essentially define a competitive grants program and define—they didn't do this immediately, but eventually hit upon the formula requiring scientists to work together in teams, on what Dennis called issue teams. So that then it was interdisciplinary work that they were doing. So as these scientists competed for the research grants, they had to gradually begin to understand and became educated in sustainable agriculture and eventually some of them became some of the real advocates for sustainable agriculture. And it created a completely different environment on the campus, where now, because there were resources available where you could do research, where you could write papers, where you could be seen as in legitimate scientific work, instead of just sort of launching these cultural attacks on advocates for and advocates against sustainable agriculture. It was a very constructive influence. During the time that Dennis was there he really managed a very difficult political process in a very sophisticated way. So all of that was happening in that late-'80s, early-'90s period when I was getting started in this world as a faculty member at Iowa State and starting to work with all of you folks.

(43:29)

RK: Dennis is on my list now, Dennis, to interview. And he's also come out with an autobiography.

RS: I saw that. He sent me the pre-print. It's a great book—he describes where he grew up, just south of Des Moines and why some of those values later on came to be really valuable to him, once he saw that he was unwittingly contributing to a form of agriculture that displaced his own farm and the way that his family had farmed, and realized that it was full circle for him, that he needed to rescue a mode of life.

RK: Well, I don't want to pass up the opportunity to have you talk some about your time with Kellogg as well, and how your philanthropy ... and then I want to give you some time that's flying by here to talk about your work with the Union of Concerned Scientists. I want to make sure we cover those two things for sure. And this might just be the initial interview.

RS: OK, sure, happy to do that. So during the time that I was on the faculty at Iowa State, for all the reasons that we just discussed, there was an upsurge in activity in sustainable agriculture, and one of the things that happened along the way was that I began to consult in sustainable agriculture, and I consulted primarily for the Kellogg Foundation. The Kellogg Foundation at that time had an initiative that eventually came to be called the Integrated Food and Farming Systems Initiative. I was a consultant to that, and I loved doing that, because what it did for me was to keep my world real, so I could talk in the classroom about actual examples of the problems that farmers were trying to solve. And at that time the problem was ... there were lots

of problems, but one of the primary problems was that there were people out there attempting to produce sustainably and organically, but it was in the very early days of what today, in hindsight, we could call putting together the supply chain. So they would produce, but, then, where would they sell. They weren't businesspeople. So the Kellogg Foundation saw that as a niche, there was a gap. So they began to do the early work. None of us realized it at the time, but it was the early work to begin to put together the value chain for sustainably produced food. And so that, to me, it was interdisciplinary, it was pragmatic, it addressed some of the social justice issues that had motivated me to begin with. So during the time that I was consulting with them, they offered several times when a program officer position opened that I should go work with them and just lead some of this work. And I really appreciated that, but we were raising kids in Iowa, which was just the ideal place to raise human beings, and we didn't want to alter that, and at the same time the portion of people doing sustainable agriculture out of state was building, so I became part of the group of people that established the first graduate program in sustainable agriculture there, so this was all good. There were all kinds of good reasons for remaining at Iowa State. But eventually our kids fledged, and that dynamic that I just described began to shift. At first it was really subtle, and right now it's not very subtle anymore, but initially it began to shift in terms of resources flowing to these programs and obstacles to continued growth of the sustainable agriculture way. Eventually the Kellogg Foundation partnered with the Wallace Genetic Foundation to endow a chair in sustainable agriculture there, and so as long as the curve for sustainable agriculture was increasing, and the critical mass of people there was increasing, Iowa was a great place for sustainable agriculture, and I was really fortunate to be in the middle of that. But that began to change, and it, coincidentally, happened to be around the time when our kids were no longer holding us to Iowa. So the next time there was an opening at the Kellogg Foundation, I went. And initially it was an offer—I was so reticent to leave the academic environment. I really did recognize and value that my credibility came from being a scientist, and I didn't want to give that up to go to the Foundation, and I was honest with them about that, and they said—what you're doing is valuable; we appreciate that as well. So why don't we try this? Why don't we offer to the university that we'll pay them to hold your position open for them? So they were kind of paying twice for me. They were paying for my slot within the Kellogg Foundation, and then they paid the university to hire somebody to do my research and my teaching, and they said let's do this for three years, and that way you don't have to judge in a hurry, you can make a rational decision after a period of time. So the University accepted that, and I went out, and I knew within six months that I wanted to do the real-world work of the Foundation. So I went off to the foundation, and by that time the Integrated Food and Farming Systems Initiative had become a larger project called the Food and Society Initiative. Kellogg was granting, around that time, about a million dollars a day. So it was really one of the major foundations supporting food, and it devoted about \$20 million annually to support the Food Society Initiative. So it made sense to go to Kellogg and have access to those resources and the commitment that they had and the vision that they understood this was a combination of science, economics, policy, sociology. And so it was just the perfect match. So I went to Kellogg, and, unknown to me—I started there January 1, 2006—that was exactly the day that they hired a new CEO who was going to change the entire direction of that foundation. So he, himself, didn't know it at the time, but in his course of looking for what this foundation could do in the world, he eventually brought them back home to the founders' original mission, which was around vulnerable children. And that meant that the big emphasis that they had on food systems now became subordinate to the vulnerable children mission, which is all to the good. I was entirely

supportive to that, but it meant that what took me to the Kellogg Foundation then had been transformed, and their commitment and investment now became diluted, because now it got distributed in a systems way across all of the different parties they had to support vulnerable children. So they did a great thing, but by doing that great thing, then it really pushed me out of what had led me to the foundation to begin with. So I was there six years. We did great work for that Food and Society Initiative. We came up with the concept of what we were supporting with our grant making. It's a concept that we called Good Food. It was measurable. We actually hired consultants to help us establish what good food consisted of. Probably my biggest contribution there was to define it as simultaneously addressing health, sustainability, and social equity, and affordability— fairness to everybody along the value chain. So we called that healthy, green, fair, and affordable, simultaneously, and the elevator description of it, the elevator pitch, was it was a form of agriculture that exploited neither people nor nature. It networked me tremendously, because, as you know, in philanthropy, everybody comes to you with their best ideas, and so you immediately know who's thinking what, where they are, what works, what doesn't. You help to fund some of those experiments to figure out what works, what doesn't and so on. So it was a marvelous, really high-learning experience for about six years that then prepared me to go to the Union of Concerned Scientists, where I think everything in my career has come together. I think I had a successful scientific career. We've talked about what brought me to that role, and it was always about making things right, socially. I'll just say this very briefly. I often got confused at Iowa State for being a sociologist rather than an agronomist, so it just tells you a little bit about the way I talked and how I worked. At Kellogg, philanthropy is supporting other people to be on the front lines doing great stuff, which is fine. We supported marvelous people, geniuses, doing great stuff, many of whom I'm still engaged with. That was what that networking helped me with. But I really needed to be out there doing this work myself, and so at the Union of Concerned Scientists, as the name indicates, they are advocates, so my advocacy no longer had to be suppressed, either as a scientist at a university or as a program officer at a foundation. And because we base our policy analysis at the Union of Concerned Scientists on rigorous science, then it actually adds value to their work that I come with a scientific background and that I understand big Midwestern agriculture at the core. So all of these things and the networking that I have formed, both as an academic as well as a grant-maker have all come together for me, so that now at the Union of Concerned Scientists I can just be who I am. The things that I want to do are the things that the Union needs me to do, and it is a well-managed organization that is not confused about its mission, so it has been a great match.

(53:00)

RS continues: We want to transform the nation's food system, so we're not humble about that, and we realize it. I direct a very small team, 12 people, so by definition that means we're not going to accomplish that on our own. By definition that means we need to be part of a coalition. At Kellogg, one of my biggest learnings was how you do coalition work, what the pitfalls are around that and what the potential is. So I've taken a lot of the ideas that I learned while working at the Kellogg Foundation and we're applying it to come up with a coalition-based effort to consciously increase the political power of the fragmented food movement, so that we can speak with one voice and exert powerful external pressure on a political process that is captured by the agribusiness sector and by status quo. So it's important to have both an inside and an outside game, and we have allies that are doing the inside game really, really competently. But in order

to really break through, my analysis is that we need a really forceful outside game, which is to really bring together all kinds of organizations that have overlapping interests but have never really worked effectively together to make this politically influential so that then we have to be heard in the same way that the agribusiness sector has to be heard when they shape what the nation's food and agricultural policies are going to be. And those folks playing the inside game—and you've been one of the people that really helped to influence how that is developed, primarily around the establishment of the National Sustainable Ag Coalition, what is now the National Sustainable Ag Coalition, have really done a tremendous job, and it hit me in my early days with the Union of Concerned Scientists how true that was when I was in a meeting with congressional staffers, and we were talking about a particular piece of legislation, and there were a number of different organizations around the table, and a legislative aide who was there looked up around and really scanned who was there, and he said—well, but what are the NSAC people going to say about this? And when you have a legislative aide saying something like that, you know that there's already an established center of gravity and power in a particular organization, or they're not going to move unless they know what that organization's position is. And that's a marker of how successful NSAC has been and how sophisticated they have been in integrating themselves into the inside game in DC, so that's a win, that's a real accomplishment. It emerged out of conversations back in the '80s that eventually led to that.

(55:45)

RK: The inside game really is, I think, successful where it is to a large extent because they bring the outside to their inside game.

RS: Exactly

RK: They are very careful about the coalitions that they're working, I mean, about building a broad, largely democratic way of operating in coalition, and to include farmers, the people that are going to be that, sort of, the guinea pigs of the policies that come out of Washington that are in there in the process from the beginning.

RS: Well-put, yeah. NSAC is one of the great success stories that there is in coalition building, for all of the reasons that you've named.

RK: Well, I'd like to kind of wrap this up for this part of our interview, at least. Maybe we'll have a chance to talk further in the future, but then in thinking of this transformation of the food policy, of food in the United States, where can federal policies come in that you most specifically ... what are some things that NSAC could do to help move your vision forward?

RS: OK, here we need to talk about one of the features of NSAC that has both been a virtue and also one of the weak points of that particular coalition for the broad systems transformation that I'm envisioning. So NSAC now has become a much more diverse organization than it was originally, but because of its roots, for all of the reasons that you named, that included farmer representation, and the Midwest's farming system was really a big imprint on how that coalition developed. So the things that have developed policy-wise have been things that farmers from this area have required. So there's all kinds of great programs that have developed, primarily

conservation programs, and up until recent times things that addressed the interests of small- to mid-sized family-owned farms in this area. So great stuff. Now here's my analysis that is a step beyond, and it can't be done without NSAC. NSAC actually is part of the coalition that we're forming. When I say that we need to increase the political power of the food movement, the thing to keep in mind is that we're talking about a nation of about 307 million people, and that farmers are 2.3 million people in that population. And then when you talk the way that all of us who are advocates for sustainable agriculture at the farm level talk, we're going to be talking about practices such as rotation and cover crops and things that the majority of the population won't identify with, and much less will they appreciate that there's a policy angle that affects them and that they need to be engaged with. But the food system, we know from polling and research, is something that everybody from farmers to eaters recognize exists. That's actually gained from the time when I went to Kellogg. When I went to Kellogg, when we did that sort of polling, the public awareness wasn't there. You had to explain what a food system was. So as an indicator of how successful the system was: Food just appears and we don't have to think about where it comes from and how it's produced, but now the population at large, particularly moms, are aware that there's a food system and that there's a policy component. We actually support a particular version of the food system. So what I'm after is creating political power that is going to include farmers but not depend just on farmers. This is a coalition that is going to begin with farmers but should include farm labor, food chain workers—it has to include the industry, except it has to include people that do processing, that do distribution. It has to include people at the retail level, and it has to include consumer advocates, so moms that care about the food that they are providing for their families, or that they wish they could provide for their families and can't afford. So all of these groups, put together with groups that care about fair wages, about economic inequality, about immigration, around global climate change about the security of the food system—these are all powerful groups of themselves, but we could be very powerful if we worked together, and that's the coalition that I'm attempting to put together, so that then we make it so—this is a little bit of a caricature, but it's not too far from reality—when a farm bill is being decided, such as in the last round of the farm bill, and the legislative process becomes unwieldy for a number of different reasons, you go outside of regular order, and then the people that really decide what's going to happen with the farm bill—you know, it comes down to about maybe four people sit in a room and they make the bargain around what they're going to preserve, what they're going to throw out, what they're going to add—if that can no longer occur in back rooms on Capitol Hill, because, first of all, no one's aware, and very few people care, out of 307 million people, that that's happening. We want to make it so a majority of the engaged electoral population realizes that their well-being as a people and as a nation depends on us having a coordinated, coherent approach to federal policy that affects all of these things that I've described. So right now the interests of status quo, this exploitative system of both people and nature, are served by none of us realizing that there's a system, that there's a continuity, that there are interlocking components that make this exploitative system possible where we cheat on the real costs, where there's costs that we externalize and keep off the books, so that we can squeeze profits. That needs to change, and unless we actually accept that as an explicit part of the reforms that need to occur and build them into law and get leaders into place that realize that and are going to do something about that, then the nation's federal policy is going to be this big banquet that is laid out like this table for status quo, big scale agriculture, and we're going to continue to get tens, hundreds of thousands, when we're lucky a few million dollars, against billions of dollars that go into the banquet, whereas we're looking at the crumbs on the floor as

our gains. And that really needs to be upside down, because the nation's public resources need to support the public interest. And so we want to make it so that that's a feasible thing to say by inserting food in a political way into the discourse of the nation's leaders, the presidential candidates, people that run for office—we want them to recognize that this is a winning issue, the first candidate, or set of candidates, that recognize that they can get votes that otherwise they wouldn't get if they accept this modern way of looking at the food system. So that's what we're attempting to do.

(1:02:52)

RK: Well, it's a big job. I'm really glad you've set your sights on this. What is this coalition called? You said NSAC's a part of it, right?

RS: Exactly. So the coalition is called the HEAL Food Alliance. HEAL stands for Health, Environment, Agriculture, Labor, and it was created by four anchor organizations, so the Union of Concerned Scientists, the Movement Strategy Center out of Oakland, the Real Food Challenge out of New York City, and the Food Chain Workers Alliance, which is based in Chicago and Los Angeles. And that anchor group has brought in about 30 additional groups, and we have about 30 additional groups on our list to begin to work with. So Land Stewardship Project is one of these, the National Sustainable Ag Coalition is one of those. Moms Rising is an example of another one of those organizations. Groups that have a broad interest across the spectrum of all of those different issues that I mentioned to you, such as the Pesticide Action Network. All of them are part of this, and we refer to them as the foundational partners, because they're providing us the ideas to come up with the actual political platforms that then we can take to candidates and say—here are policies that are better. We know they're better because farmers, farm workers, food industry, retailers, and people that buy the food all put together this plan for a better food system, and this will get you votes. And our first trial run of this is a campaign aimed at this presidential election. It's called Plate of the Union. Anyone who's interested in learning more about that can just Google that term and go to a website that we've got set up where you get a tool kit so that you know how to engage with candidates that come to your caucus, your primary, and whom we hope to educate. As a c3 we can't be partisan, so we just want to make sure that everybody who has access to a candidate can educate these candidates about the fact that, in addition to all the preparation that they do right now to have smart things to say about national security, about terrorism, about climate change, about energy security, about whether we go to war or not, they'd better expect people in the audience who are going to ask them where they stand on wages paid to farm workers or where they stand on supporting family farmers, or where they stand on concentrated animal feeding operations, and whether we should use antibiotics to make them viable, and so on. But with a tool kit that will help engage voters, know what kinds of questions to ask these candidates so that those candidates recognize they'd better start asking their teams to make them smart on those issues, and hopefully whoever ends up being in office then recognizes at a much more sophisticated level that food is just as important as climate change and labor and wage issues and the economy questions that they believe are the foundation of the sound presidential platform. We want food to be a part of that.

RK: Very good. And hopefully that will take it to the next step, so that the next farm bill will have really deeper, more truthful alliances between the folks that are most interested in food and

hunger and the people that are interested in conservation and those sort of things that have been part of the farm bill, and sometimes find themselves at odds in order to pass this mammoth bill. The deals get cut.

RS: That's spoken with the voice of experience, because that's exactly the problem of that coalition that has worked, so far, with a focus on the farm bill. So what we're doing is saying the farm bill's important, and it's not the only game. That's why our coalition is so broad and we want to play in lots of different arenas, such as the presidential arena. So, as you know, Ron, we at the Kellogg Foundation, we really played hard with the 2008 farm bill, and putting together a coalition that we thought would be different than the traditional coalition we had—say the Community Food Security Coalition in the same room with American Farmland Trust and Environmental Defense and NSAC, the National Sustainable Ag Campaign, thinking that we would put together a different way of running at the farm bill, and that's where I learned my hard lessons about what it takes to put together a successful coalition.

RK: Yes, that's good. Well, unless if there's anything else you'd like to say to wrap up, that would be good. Otherwise, I think we're had a good amount of time here, and I'm very grateful for your contribution.

RS: Well, thanks for the opportunity. There's too much to fit into one hour.

RK: There is. Thank you.

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