eAgSpirations Podcast - EP.4 - Prof Bina Agarwal Transcript

[00:00:00] Hello, and welcome to another episode of AgSpirations by AWARD, brought to you by African Women in Agricultural Research and Development AWARD. This podcast features immersive conversations with leading global experts and thought leaders to explore how we can accelerate inclusive, agricultural-driven development.

I'm your host Dorine Odongo.

[00:35:00] Dorine Odongo There has been a growing momentum on gender and equality, which has seen the topic of gender gaining centre, staging global conversations, and becoming a prerequisite for government funding, private philanthropy for development and other development consideration. However, a yawning global gender gap persists significantly hindering progress towards sustainable inclusive development.

Now the questions remain. What is the role of gender equality in inclusive agricultural systems? At what points along their agricultural development, continent should we start paying attention to gender equality? Today we are excited to be joined by Professor Bina Agarwal to discuss gender equality and inclusive agricultural systems.

Professor Bina Agarwal is a renowned award-winning author and professor of development, economics, and environment from the University of Manchester, she will address these questions and more, as we illuminate the progress to agenda equality and development throughout the month of March.

[00:01:40] Professor Agarwal I'm incredibly honoured to have you on our podcast. Welcome.

[00:01:44] Professor Agarwal Hello, I'm delighted to be part of this podcast and to be having this conversation. Thank you so much.

[00:02:05] Dorine Odongo Now let's just go straight into it. A quick search about you and your work reveals that you have had a stellar career as a development. You have extensively researched and published on agriculture and development, gender and equality, law and rights policy and environmental issues among others, still the subject of gender and inequality stands out in your work. How and why did you decide to have this as your core focus?

[00:02:34] Professor Agarwal I actually didn't begin with gender inequality when I was looking at agriculture. I began looking at agriculture in the seventies. When I began my doctoral dissertation and agriculture was extremely important both in terms of its contribution to GDP and in terms of its contribution to employment, not just in India, but in most developing countries, which was still a granule at that point in time

India had just launched it's a green revolution program. And there, farmers were using a package of practices consisting of high yielding variety seeds with very high levels of chemical fertilizers and pesticides within a short water supply. And there was a major debate in India on whether we should mechanize agriculture by using tractors, which was of course the case in the USA. It was the model, which was very much part of the American model, Ford Foundation was important in promoting green revolution initially in India. And I at that point was of course also struck as I was doing field work and also using data of the lack of presence of women farmers.

Although they were there in the fields, you didn't find very much reference to their contributions in the literature. What was also interesting was that I discovered that agricultural economists, when they aggregated the total labor use on a farm they they took female labor as a equivalent to half of men labor.

And the reason given was women are less productive than men or that they are paid half of what men are. What was the bias in the labor market was then converted into a bias in academic studies. Now I was very skeptical of this and I was looking for evidence to the contrary. And in fact, I found it in the Punjab Agriculture University in India, where one of the young male engineers said that I have done a study of potato digging equipment with male and female farmers.

And he showed me the results. And you found that using the same equipment of the women were several times more productive than the men, both in terms of how much time they took to get a certain amount of potatoes dug and so on. I then decided that this was a marker and that female labor should be considered at least equivalent to male labor in my dissertation.

And it was the most discussed point in the variables, so I was interested in issues of gender, but they were not the primary focus of my thesis. However, subsequent to that, I worked on gender and technological change. And in that context also discovered that women have rather little access to technology.

And one important reason for that was that women readily owned the fields that they cultivated. And this was true for both Asia and Africa. I did a comparative study in the eighties on that. The topic of course is is very very large because that took me on beyond technology to look at ownership of land as a major marker of inequality between men and women.

And in 1994, I wrote this book called **A Field of One’s Own: Gender and Land Rights in South Asia.** At that time, there was a rather little work on it. It covered five south Asian countries and I looked at it cross-disciplinary I looked at the economic case. For women having land, what are the factors? why that was important?

So for instance if I argued that it was very important for at least four reasons the equality ofcourse but as an intrinsic factor, but also for welfare, for efficiency and for women's empowerment. There's a substantial body of work, which already showed that if a family had land or own land, they were much less likely to be poor than if they were landless.

So they're working as agricultural laborers, but people hadn't actually looked at what if women were landless, what kind of vulnerabilities did they face and typically You found that especially if you [00:07:00] had women became widowed or there was marital breakdown that women would face severe poverty, but also that diplomat had learned, they were much more likely to spend the incomes that they got on family welfare and on children's rights.

So there was a connection between women owning assets and a significant asset like land and not only their own welfare, but also the welfare of the entire family. That was only one part of it. The second was a question. Are women more efficient? Does it improve efficiency? If you have great a quality? And there was some degree of evidence at that point in time that has both these factors of course, since I wrote my book in 1994 book there's a substantial body of evidence which has built up, which actually supports these early findings of women and family welfare but it can also improve efficiency and in terms of productivity.

In fact in 2011 FAO focused its flagship report State of food and agriculture on women farmers on women farmers and it argued that women are as good at farming as men but they faced resource constraints. Then based on a large number of empirical studies, particularly for Africa and Asia that if women had the same access to inputs and land as men, women could increase yields in their farm by 20 to 30%. And this could raise agricultural output in developing countries by 2.5 to 4% and it could also improve food security.

And then you'll find interestingly further work that a colleague and I did where we looked at, whether owning land or a house, which is immovable property made a difference to women's risk of domestic violence. And we studied some 500 randomly selected households in Carola, in the state of Carolina, Southern India. And we found that households in which the woman herself owned neither land or house, the incidents of domestic violence was 49% and where they own both it was just 7%. And if they owned one or the other, it was in the range of 10 to 17%.

So the basic point I'm making is that. Although we talking about agriculture and land as the primary fundamental factor of production. The implications of that are much wider than simply the question of agriculture, if you like agricultural farming systems, the implications resonate across the veil fair or families intergenerationally, and also in terms of empowering women.

[00:10:27] Dorine Odongo Wow. Lots of interesting findings there, what stands out is that women's ownership or women's access to opportunities improve the efficiency and general welfare. But what I found really interesting is that when you started investigating the issues of gender and women empowerment that they used to equate female labor to half of male labor, Wow.

How is the situation now? Has that improved or is it's?

[00:11:03] Professor Agarwal It is interesting. And I find now that studies in agricultural economics tend to treat female and male labor equivalent. So I think there is been, there has been substantial progress on that count. It's still a mixed bag if you look at the wage gap although for instance, in India, the minimum age is specified as equivalent for men and women for the same tasks, but on the ground, you still find that there is wage gap and that is true for many countries. So the understanding that progress in academic work has not immediately translated to this equivalent progress in practice.

[00:11:46] Dorine Odongo Yeah, indeed. The gender gap persists the wage gap persists across sectors, across levels, but even in the formal sector. But now there has been increased attention to gender and inclusivity across various sectors. What would you say are the fundamentals of inclusive agricultural systems?

[00:12:06] Professor Agarwal That's a very large question because I would say that I would still come back to access to land and especially the tenure security is extremely important. Now tenure security can mean different things in different regions. There's the issue of ownership but also more generally in countries like Europe, for instance, you can lease land there’re nine year leases, which are renewable and they have tenure security without owning it. But if you take a country like India, then tenure security is linked both to ownership or recognized ownership by families and communities. And of course, land registration and giving, having a title can prove additionally important, but I don't want to talk about agricultural inclusiveness only in terms of land because you need land for agricultural livelihoods. And for that you also need access to inputs, to credit, to technology, to technological information and to markets.

And increasingly the kind of technical information you need is also about how farmers can deal with climate change. Sometimes this is this is information which is increasingly transferred through your cell phones and digitally. And the inclusive one can broaden it to also say if there is inclusiveness in in terms of farmers access to cell phones and that, then that also should be a part of this package.

And then if I may add something more, the notion of inclusiveness is much broader because you could say that inclusiveness should also cover issues of ideas, not just technical ideas, which go into farming, but also broader ideas of sustainability. Of institutional mechanisms by which farmers can link with the broader rural economy.

You often find that sons and daughters of farmers these days don't want to farm. They would like access to jobs and the more inclusive the farming systems are. I think the more the opportunities will be for the next generation.

[00:14:39] Dorine Odongo Indeed. Yeah. Thank you for bringing up the issue, the topic of sustainability.

And I want us to still stay on the subject of gender inequality in property and land and environmental and institutional issues. What can you highlight some of the opportunities that we have to displace those systemic barriers that continue to perpetuate gender gaps, particularly in developing economies?

[00:15:06] Professor Agarwal So let me first just share a few figures of the extent of the gap. So just very recently, just last year, I published a paper on how many and which women own land in India. And it was data which looked at across nine states. And I found that among landowning rural households, the only 14% of the landowners were female. Only 14% and they owned only 11% of the agriculture land. And there are other studies which indicate that. Then if you look at other regions, so if you look at, for instance in Nepal, you look at Pakistan, you look at Bangladesh, other parts of South Asia in all these cases it tends to be certainly less than 15% or just about 10%.

In Sub-Saharan Africa there are other colleagues and others who written a lot about it. And one of the averages across nine countries is 22.2% of landowners who are the men . In Latin America Magdalena, the Leone who are also colleagues, who've done work in Latin America, and they look at a range of five countries and the percentages are 11 to 27%.

So as you can see wherever you'll go in the developing world, you find there's a huge gender gap in terms of ownership of land by gender. Now, the second part of your question was what are the causes? And the causes can be many firstly one can I will focus and especially talk about south Asia and India that the most important source of land for women still remains inheritance.

And the reason for that is that over something like 86% of agricultural land is still privately owned. So it can be through inheritance or gifts, but typically it is to inheritance. And the other sources are through the state. If the government has land reform programs and could transfer land to women.

And the third is through markets, you could purchase land, but typically women are less endowed in terms of financial resources than men. So they are disadvantaged there in many countries and particularly the India in terms of the law inheritance law for about 83% of the population is gender equal.

And I had in fact worked with civil society in 2005 towards leading a campaign to amend the Hindu inheritance law which covers about 80% or more of India's population. So the second gap is that even if the law is equal, is it implemented on the ground? And we can see from the figures I cited that the laws are not implemented because families still control the land and they are biased.

They would like still that the sons should get the land. If you would imagine that marriage patterns make a difference. So because women in many parts of the world, and certainly in South Asia, when they married, they moved to another village and the sons remain behind.

So it's often argued the woman has gone to another household so she's not a adequate claimant for the land. So there are social norms. Of course, it varies like even in India, in North India, this is much stronger. This constraint than in south India, but social norms make a big difference. The third is there are biases in the way in which information and technology is disseminated.

There used to be quite a lot of discussion of this in the 1990s, 2000, that, how do you ensure that women farmers get access to technical information? Or should we have female village level workers who are village extension workers. But now increasingly of course, information is also given through cell phones which is why I earlier talked about the digital divide. Not only is there a digital divide between the well-off and the poor, but also between men and women. So all these constraints play up in terms of not only access to land, but also access to the inputs and technology that is needed to make it more productive.

I might also mention something else Dorine which is that a very substantial part, a much greater proportion of women than men tend to be left behind working on agriculture because typically it's men and younger men who tend to move out more easily for other jobs. So if you look at the non-agricultural job market, because that's biased, so you have women more dependent on agriculture at the same time, and they are the farmers so our productivity, our food systems are going to increasingly dependent on them. There's a feminization of agriculture globally. And it is therefore even more imperative that we focus on the constraints that women face as agricultural workers and farmers, and these constraints are, as I said legal, technological access to markets, all of that.

[00:20:43] Dorine Odongo It's very interesting how we share some of these social norms. Yeah. So far apart yet we share a lot of similarities, certainly here in Kenya, for instance, the issue of land inheritance. Yes. We have the constitution of Kenya provides for women to inherit land, both men and women. Yet the argument is that women will get married and they get land at their husbands homes. So why should they benefit twice? Like that double benefit. And so it's one thing to have the law another thing to have that implemented. What would you say are some of the ways we can, follow up on issues like implementation of laws and, just holding our systems accountable.

[00:21:31] Professor Agarwal I think one of the issues in Sub-Saharan Africa is of course, that there is so much of customary tenure as well. In India and in Southeast Asia, a lot of the laws are codified and with custom of course much depends on interpretation. And customs can change. So I think the security of the law itself is quite important.

But even as I said, even if you, if the law is there it, because it's not implemented I think there are several things which are important. One is that grassroots groups, I work quite a lot with grassroots groups in rural India and south Asia also. And there were some workshops I did many years ago, I remember there's a workshop I did in Western India 20 years ago, where a whole range of NGOs had come, and they formed a network called women and land rights network and what they have been doing is training at the local level, raising awareness and making women much more aware of their rights, but also training the village level workers and the officers who actually register the claim.

So for instance, if there is a male member of the family dies, then his heirs need to be registered. And often it used to happen that the women's names were not registered. So training the local officials is something that they've been doing, and they've been doing media campaigns.

I'm just giving you some examples of the need for bottom-up awareness raising and here the non-governmental organizations can play a pretty significant role. It's of course not enough. I think the national media must also focus on this much more than it tends to do. And other thing is, which is we need to look at it more carefully is that demographically you find that as more men move out of farming and the feminization of agriculture, I think a much stronger case can be made. That the women are the main farmers and there has to be much more governmental attention on them. And the arguments have to be in the language of the policymakers who are interested primarily, of course, in issues of productivity.

The question of food security of course has now come up very strongly. It's always been there, but with COVID the fact that we are focusing on questions of food from that angle and we are focusing on questions of food and food systems from the angle of sustainable agriculture. I think those are entry points, which are new entry points in this debate. Don't you agree?

[00:24:39] Dorine Odongo I do agree indeed.

[00:24:43] Professor Agarwal And I wanted to share with you something I've been now working on for 10 years, Dorine. I first discussed this in the last chapter of my book, a field of one's own and it was called the long March ahead. And in which I recognize that the amount of land available in most countries is finite.

And can we think of systems where groups of farmers and especially women farmers could come together and farm jointly. That was simply an embryonic idea in the book. But the last 10 years I've been working on this much more systematic. So the idea here is that if you look at the data something like 84% of farmers across 111 countries cultivate less than two hectares or less. In India, 70% of farmers cultivate one hectare or less. So these are very small. This is true for south Asia. It's also true for large parts of Sub-Saharan Africa. It's perhaps much more mixed in the context of Latin America. So with such small farms you are disadvantaged in terms of lack of economies of scale in terms of the access to inputs, the financial resources.

I thought that conceptually, if you think about it, if groups of farmers pooled their resources, then they would be a much more economically viable than if they cultivated individually. And this idea of group farming. Now it's not the idea of farmers coming together is of course not a very recent idea.

Some people associated with socialist collectivization, but I'm not talking about that because in my view group farming it should rest on certain principles like volunteering as a bottom-up participative decision-making and egalitarian sharing of costs and benefits. And we find examples in many parts of the world.

And I know that Sub-Saharan Africa and Asia in the post-colonial period, as we got freedom from colonial rule, there was a big land reform program. And in that context many countries tried the idea of group farming. There were not very successful. In most cases, you remember in Tanzania, you had the Ujamaa experiment and in India, also in many other countries influenced by I think the socialist countries of that period, but they were not successful because they tried to bring together small and large farmers in large numbers. Today we have a different model of farming. And in India, for instance, is based on the self-help group model, which was initially introduced as one of the models for microcredit that small numbers of women come together and they pull their savings and they rotate the lending, but at the institutional frame of self-help groups is that they are voluntary, they are small, they are agritarian and so on. And building on that, we find that there are some very good examples of group farming by women in India. So I've studied that and the most interesting one is in Carola, which is in south India and here in the early two thousands, the government as part of the, actually slightly earlier than that.

But the government decided that as part of its anti-poverty program, it would make it much more women centric. Neighbourhood groups would be formed within which women could form small groups for savings and credit. And some of them could take up joint entrepreneurial activities of it. Group farming was a major one.

So you'll ask what is, what exactly does this mean? What it means is that let's say six to eight women, or even fewer, anything between four and 10 women come together. They lease in land. If they don't own land, sometimes they want small amounts of land, which they can pull, but are they leasing land?

And they pull this land and they pull their labor, and they pool the resource and the cultivate together, and they share the cost and benefits now. So our question is how productive are they? And I then did a very systematic piece of research. I did a sample of group farms and individual family farms 95% of which are male managed to compare the productivity, collecting data for every input and output for every plot, for every crop or an entire year for 12 to 13 months. It was very intensive, very laborious data collection. And I was able to then compare the two types of farms and I found that in this context that the average value of output of women's group farms was 1.8 times that of the individual family farms, which are largely male managed. And in some commercial crops, like banana is a big crop in south India, banana yields in group farms were 1.6 times more than the individual farms.

And then I calculated the net returns. That is if you take the total value of output and then you subtract the purchased inputs and so on then you'll find that the net returns per farm in the groups were five times more than of individual farms. And, per hectare it was 1.6% times.

So some groups had actually pulled their profits to buy land as a group. Now you might say how many are these? Maybe these are a few cases. There are today, 68,000 all women's group farms in Kerela. There's also group farming in smaller numbers in in the state of Telengana which I also studied and then partly influenced by my writings there were some experiments in Eastern India where they in the states of Bihar and north Bengal they launched group farming and those were much more mixed. There were a women's group, all women's groups, all men's groups and mixed gender groups. And again, you'll find that it made a big difference to their productivity compared to them being individual farmers.

And they were also much more food secure during COVID. Infact the Kerela women's group farms were able to 87% of those who were farming in early 2020 survived economically. Whereas many of the individual farms, the male-managed farms were not able to survive because of problems of labor shortage and access to markets, but in a group, of course, you're pooling your labor and you are pooling resources. You are you're much more able to sustain it.

[00:32:46] Dorine Odongo It also sounds like it also boosts their resilience.

[00:32:48] Professor Agarwal Yes. If you you have to, how do you think of resilience? So here's an example, there were floods in Kerela I think it was in 2018 and these women's groups, and there were not just the women group farms, but also because the women working in groups as entrepreneurs, they came together and the recovery from the damages of the floods, because they help not only themselves, but also the communities of which they were a paert. The recovery was there for one, could see it as a very important part of resilience of being able to come back.

[00:33:33] Dorine Odongo And actually I wanted us to switch gears and it sounds like you've gone ahead and talked about some of the ways that could help us move towards more inclusive agricultural systems.

And to me, it sounds like the group farming that you've mentioned in Kerala is one type of innovation that could help us achieve more inclusive agricultural system. Let me know if that is correct. Cause that's my assumption. But also secondly, you've mentioned that there were situations where we had mixed groups that consisted of both men and women and I'm wondering how did this perform compared to female only groups?

[00:34:12] Professor Agarwal There weren't enough in the context of Kerala for us to make a comparison, I did look at, I talked to people to see if were all male groups and you do find that all male groups are coming up because they find that the women's groups are successful.

There is one important difference that women's groups tend to have to leasing land because very few of them own the land. And so they face disadvantages. The men often own the land that they cultivate. So they have an advantage that the mixed groups that you find are in more in Eastern India and they're small in number, the experiments are not as large and you'll find that you can make a definitive statement in terms of productivity because the samples are very small. And you need many more to be able to make a definitive statement. But what you find observationally is that the mixed farms if they are relatively egalitarian, so suppose you have six or seven members of which say four or five are women, or at least if three are women, so that it's not an imbalance, it's not one woman among 10 farmers.

Then it works well, remember that there's a gender division of labor in agriculture as well. That means that there are certain tasks which are predominantly done by women and certain tasks were just predominantly done by men even now. For instance land preparation, plowing and so on is an irrigation is predominantly done by men. It need not be, but it tends to be. So even in the Kerela context, the all women's groups did not own tractors because obviously the farms were still too small and they were leasing land, but they had to lease tractors and they found that it was sometimes there was a male bias because the farmers, male farmers who own tractors would not give them priority.

What I'm saying is that if you have a mixed group, it can have some advantages in so far as the men are able to negotiate through their networks on certain kinds of machinery and technological information and the women through their networks. So it would be very interesting to see how these work, I think mixed groups would work well as long as there's a gender balance in those groups and women are not just marginalized. What you do find again is that there is much less conflict among the all-women's groups and conflict resolution if there is sorted out very much more easily. This is something which can get extended in all men's groups or in mixed group.

Somebody could argue if you own the land, you can always exit. If you're leasing land together, you're stuck together and you have to solve the problems. But I think there is a literature an experimental study where they've looked at The women are more cooperative than men. And there tends to be evidence to suggest that if women often tend to be more cooperative than men, and if there are more women in a group that also improves the degree of cooperation within the group.

[00:37:34] Dorine Odongo Yeah. That's not surprising. It's also not surprising that men are beginning to get into group farming after seeing how successful women are so setting a good example.

[00:37:44] Professor Agarwal There is another positive part of the story if it could be a scaled up which is that again, the Eastern Indian context, which I visited you find that some of the younger people who were migrating for jobs to cities some of them decided to stay back and do group farming. Typically if you're educated and you're young, you don't want to be in agriculture. That's the general experience. But if you have technological upscaling, then younger people begin to feel that, yes, this is not just dirtying your hands in the sand or in the soil but there is science and technology involved here and working in groups, they find reinforces the ability to support each other and to be successful. And these are examples. And as I said in Eastern India, where there are markets for vegetables, which gives them profits. It could be a potential or one of the solutions to reducing the migration of youngsters to cities, wherever you find that, they are living so far away from home under alien conditions.

And in the context of COVID we had a mass migration back to the village. So I think it's not just an issue in Kerel, I think these examples of group farming are in several parts of India. They also exist in Europe. If you look at France, I've studied France, you have a large numbers of farmers, at least I think when we looked at them, something like a seven to eight percent of all farm enterprises were of this nature. But those are predominantly all- male group farming enterprises, particularly in livestock industry, which it is labor intensive. You'll find it in Norway as well. I visited Norway and there also you have this model.

So I think the different contexts, it could work in different contexts because some of the advantages of economies of scale, sharing of labor, sharing of losses and profits, all of these things can make a difference. And for women, particularly because it increases the bargaining part in markets as well.

[00:40:14] Dorine Odongo Yeah, that's right. Indeed. Group farming, collective effort increases their bargaining power. Yeah. So Prof. as we near the end of our conversation, I'm wondering from your research on women's economic contributions and even frameworks for understanding women's empowerment, what are some of the learnings that African countries can scale?

[00:40:37] Professor Agarwal I always hesitate to take experiences from one vast region to another region. But I think of course Sub-Saharan Africa, there's a lot of diversity between countries, but I think there are some common features, which you also pointed out. The common features are that the vast gender gap in land exists in Sub-Saharan Africa, as it does in south Asia.

And I think perhaps we've concentrated too much on seeing how women can access land through the family. I know that even in Sub-Saharan Africa, you have women depend on male owners or family owners to allow them to cultivate land. There is a registration process, of course that's going on, which makes a positive difference.

But I would say, let's look at other mechanisms by which women can access land. And one of these the examples of women group farming, I think is a lesson that we could take to other regions. I can only say that it's very much worth trying because you do have savings and credit groups for instance in Africa which are quite widespread which are not dissimilar to the self-help groups in Southeast. And those could perhaps be a mechanism through which you form group enterprises and access to land and inputs and so on through groups. I think that's a much more scalable model. It has to be somewhat context specific, but the push for those ideas, both by academics and by NGOs, so that there's a shift in government policy could be very promising.

I do want to say that groups don't necessarily form automatically. You do need some inputs. Initially I think you do need government support. Even in Kerela for instance, they provided women with training and India has a program of subsidized credit for farmers, male and female farmers who farm groups. So that levels the playing field somewhat because often, women, when they're working in the family, they're not necessarily always the managers. And so management of a farm is an additional experience which women gain when they begin to do group farming. So when you talk to the women, they say that look I used to farm but now I know the bank managers, I know the technicians. I know if I want information on technology, if there's a crop failure, I can access the officers who I couldn't do earlier. And so it broadens the horizon hugely. And I think this is a much more generalizable lesson which as a model could be transferred or shared across regions,

[00:43:40] Dorine Odongo All right. So we have come to the end of our conversation Professor. I'm wondering, do you have any parting shot for us on the progress that particularly developing countries are making to agenda equal and inclusive agricultural systems?

[00:43:54] Professor Agarwal I think this is a very important moment. The fact that we are having this conversation and there are these conversations taking place in many forums is bringing to the attention of both governments, policymakers, and international agencies that women are not just farm helpers. They are farmers in their own rights. And the recognition of women as farmers also means that policies relating to land and inputs and technology needs to be directed directly to them and not mediated through male family members.

So I feel that widening these conversations and taking them forward will make a big difference. And this is the right time to do it because of COVID, but because of the very substantial environmental degradation that chemical farming systems have caused to agricultural production globally. People are looking for new models, they're talking about natural farming for instance, and I think women can play an absolutely central role in leading in those directions.

[00:45:03] Dorine Odongo That is indeed the perfect place to end it. We need to intensify the conversations on gender and inequality in agricultural systems. Thank you so much Bina for being on our show, for sharing with us. It's been a pleasure talking to you.

[00:45:19] Professor Agarwal It's been a great opportunity to have this conversation on the topic, which is very close to my heart.

[00:45:25] Dorine Odongo Thank you. Friends. That's all the time we had for today's episode and we hope you enjoyed the conversation. I have been talking to Bina Agarwal, an Indian development economist and professor of development, economics, and environment at the Global Development Institute at the university of Manchester. Until next time we welcome your feedback and suggestions on guests you'd like us to host.

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