

Transcript_India's Green Building Progress with Deepa Sathiararam

- Charlie: [01:00](#) Hi everyone. Welcome to the next episode of the Green Building Matters Podcast. Today I have a LEED Fellow coming to us from India and she has done a tremendous amount of green building work in that part of the world. Can't wait to get into Deepa's story. How are you doing today?
- Deepa: [01:15](#) I'm doing very good, Charlie. Happy to be part of this podcast.
- Charlie: [01:19](#) Well, I'm excited. You and I recently met at the Greenville conference in Atlanta and just really was excited to learn more about your story and how you've accomplished all this that you have in your area and what comes easy and what comes, maybe it's a little harder, but I've got to ask, where did you grow up? Where did you go to school?
- Deepa: [01:38](#) I basically grew up in India. I come from Chennai, which is in the Southeast coast of India. It's one of the large four metros in India, but still a very relatively quiet and conservative town in comparison to Delhi or Mumbai. And I did my school there and I also went to engineering school and college in Chennai. I'm an electrical engineer by study and a mechanical engineer by work and design. So basically I've been in the engineering field all my life.
- Charlie: [02:12](#) That's fantastic. And I know that probably gave you exposure to eventually buildings and then sustainability, but I'm going to ask is it less common for female engineers at the time when you were going through university? Or was it pretty evenly balanced?
- Deepa: [02:27](#) It was not very common. Most of the women would select typically computer science or electronics engineering, which was very popular. But I went into one of the conventional electrical and mechanical fields. And as I started work, I actually got into HVAC and I was probably one of the first women design engineers in the HVAC field at that point in time. So there were not many women, I don't think that are still very many women in the HVAC industry in India. And it's great, but it gave me an opportunity to do a lot of things.
- Charlie: [03:06](#) A pioneer. I love it. That's fantastic. So out of school then, did you get into design engineering? Is that the early part of your career?
- Deepa: [03:14](#) Yes, that was my first job out of school. I joined old Taz, which is one of the largest hedge BAC design and execution funds in

India. And I started as a design engineer, started working on air conditioning design. And that was probably my first introduction to energy efficiency in buildings. And I got very interested. Interestingly, the two early areas that I got very involved with was energy efficiency and indoor air quality because that was a time when there were a lot of sick buildings that were coming up in Ashrae and different parts of the world. So it was very interesting that I got into two of these areas and then subsequently expanded into other areas of sustainability going forward.

Charlie: [04:05](#) Let's talk about the sick building there and then efficiency, right? They oftentimes fight each other. So did you have an aha moment anywhere in there that you wanted to make buildings better or you knew you wanted to get into sustainability? Like how did you get into sustainability

Deepa: [04:19](#) As an Indian, a typical Indian family and coming from a traditional Indian household sustainability or sustainable living is not new to us. We probably did not use the word sustainability or circular economy or any of those fancy words that we talk about today. But essentially what we did as a lifestyle was that everything was put to use. Nothing was wasted, everything had a life and an after life and it found its way into our life in many ways. So I was used to sustainability as a philosophy but as a carrier and as a sustainability in the built environment post my marriage, I got an opportunity to move to the U.S. For a few years and I started working with the International Code Council ICC and one of the subsidiaries called International Accreditation Service in the U.S. Based out of Brea, California. And as I started working with them in the early two thousands, that's when the U.S. Green Building Movement started gaining good momentum.

Deepa: [05:26](#) And because of my knowledge and prior experience in energy efficiency in buildings, that became a natural extension and I got involved with LEED and U.S. Green Building Council's body of work and I started working in certain aspects of sustainability early on. Post that for family reasons we decided to move back to India and we wanted to start our own design consulting firm. And that's when we said, okay, let's start focusing on sustainability. When we started it in India in 2003-2004 we were the first exclusive sustainable design and consulting firm in India.

Charlie: [06:07](#) What a great story. I really appreciate you telling us your time in the U.S. And right place, right time with a tool like LEED and you're able to bring that back to India and as I understand it

you've worked on over 600 green building projects and I want to talk about those in a minute, but it's important to those listening to the podcast Deepa to talk about mentors or influencers. Did anyone have an early influence on you in your career? Is that someone maybe you had exposure to or someone you just followed?

Deepa: [06:36](#) At home I had huge exposure with my grandfather and my father. My grandfather was one of the earliest HVAC designers in the country in the early 1950s so essentially I've been surrounded by engineers all my life and it's just something that was part and parcel of my growing up. And I always looked up to them from a perspective of the way they handled projects, the way they tackled technical issues. And that's been something that is a huge learning and knowledge for me that helps me in my work even today.

Charlie: [07:18](#) Well, that's fantastic. They just obviously had an influence on you, even at a young age. So tell us about the last, almost 20 years here in this green building movement and, and tell us about some projects along the way. Because as I understand it, you've worked on some very important projects in India, like the first net zero building in India. So what's difficult to do green buildings in India, but what actually might come a little easier than maybe if we're not from there, we wouldn't think of it.

Deepa: [07:45](#) I think that the initial few years when we started working as sustainability consultants, it took a while for us to convince people on the business case of green and the costs or the additional costs of going green was still there at that point in India because we didn't have a lot of the materials and they needed to be imported and most of the times that would increase the project cost itself. So it did take a while, but as people started seeing the benefit, which is predominantly energy efficiency and cost of energy is not cheap in India. So it's not available and it's definitely not cheap. So we used energy efficiency as the main focus area to initially get people to adopt green because that was the easy thing for people to relate to.

Deepa: [08:41](#) And also that they could see benefits because they could actually see operating costs going down. And know, with the lifecycle of the building, they were actually doing better. So we started working on energy efficiency with a little bit of the other green credits to start with. But eventually as people started realizing the importance of sustainability, the movement took off very well in India. The first net zero energy building happened by accident in the sense that they wanted to go for a LEED platinum and we were working with the clients on

focusing on energy efficiency to see how do we take it to LEED back to them. And then there was always this whole movement about the living building challenge and let's see the way energy buildings in the U.S. That we keep hearing about. It's just one of those ideas that I talked to the client and they've been very happy about it and they wanted to see this, they considered it and subsequently we were able to make it not just a LEED platinum but also a net zero energy building.

Deepa: [09:48](#) It was a small project, but nevertheless it was a very important one for people in the country to understand that it is doable and it is possible. So that was a great project. We also did a very interesting project, which eventually became the first net zero carbon project through construction. Because a lot of times when we talk to clients, I tell them the greenest ways to not build at all because you know, once you start building, you're actually creating an impact on the environment and the best efforts can be to minimize it but not to eliminate. So we said that putting up the green building also has an impact on the environment. So for this project, we actually tracked the entire carbon emissions for the construction activities on site and then the clients actually offset the tracked renewable energy investment. Thereby they became the first carbon neutral construction project in the country about five, six years ago. And that was again, a huge eye opener for people to say that it's not just the design, but how you put up the building also matters.

Charlie: [11:00](#) What a great showcase there. Just fantastic, unbelievable what you've done. I've got to ask next, a little more about your highlight reel. I think it's okay to look back, not just career but personal. So what stands out? What are you really most proud of?

Deepa: [11:15](#) I think that personally one of the proudest moments that I had was when a few years ago the country came up with a list of what we call the top 15 green keepers in India. And I was featured as part of it because of the work that I had done in the build industry and in sustainability in general. That was a proud moment to be recognized in the country as one of the forefront people in sustainable design. But one of the other personal projects that I'm very proud about is as part of my work in the green movement, about nine to 10 years I worked on a green schools program. One of the things that we really wanted to do was as part of the Young Indians Arm of the Confederation of Indian Industry, I set up a program, where we reach out to school children to actually educate them on various aspects of the environment and to also use that to instill a sense of

environment of responsibility in them. So we've been running this program for about 10 years and thousands of schools and close to about 50 to 60,000 students have been through this program. So it's a great moment because you actually are educating and you are giving the right mindset and the tools to the next generation to come up in much better solutions or much better environment.

Charlie: [12:50](#) Amazing story there. And congratulations on all your accolades. Obviously LEED Fellow actually one of the first and very involved with the Indian Green Building Council fell there. The wellness movement. Maybe we can talk about that in a minute because it's one thing for sustainability and to make sure our buildings are less of an impact on the environment. But how about health and wellness, maybe WELL and fit WELL? Is there any popularity coming with the new programs?

Deepa: [13:16](#) Actually health and wellness is really caught on in India simply because if you vett the news, you can understand the outdoor air conditions that most of our major cities have today and not to talk about the lack of water or contamination in most of our water and rivers. Also malnutrition challenges that the country faces in terms of social issues are basically the heart of the wellness movement is something that we've been struggling as a country for long and that something that's the need of [inaudiblethe VR] So it's really available, we talked to clients, there's an immediate understanding and there's an immediate recognition of the fact that we need to do something about the health and wellness in our built environment. So the WELL building program has taken off really well in India and we have close to, I think about 30 million square feet of WELL buildings that are registered and pursuing different levels of WELL certification with either UBI. WELL is not yet very popular in India. A lot of people have taken a closer understanding of the WELL building standards. So that's a little bit more popular. But nevertheless, I think as a concept that's the need of [inaudibleThea] for us in this country.

Charlie: [14:41](#) Okay, well we'll keep an eye on it and I know WELL is growing. Let's fast forward to today. Tell us some more about En3, your firm. What do you do, what do you focus on? Any cool projects you're working on right now?

Deepa: [14:55](#) Sure. So En3 is a specialized design and consulting firm that focuses on all aspects of sustainability. And we have to our credit, more than 300 million square feet of green spaces in this part of the world and 600 plus LEED-certified projects. And a lot of other projects that are certified under the Indian green

ratings. So this is our 16th year of incorporation here in India. We were not the largest green consulting firm in the country. And we work with clients on multiple fronts. You know, it's not about getting the certification. We treat the certification as a byproduct and what we want to do and what we help clients do is to implement [inaudible gentlemen] and practical measures that will actually benefit them and the societies. So the certification is done. But we always tell clients to consider that as the byproducts with the approaches not to do something to check a few boxes and to get a few rating points, but the approach is to do the right thing, and subsequently celebrated by getting your certification.

Charlie: [16:10](#) Yeah that third-party validation. Anything else we need to know about doing green building work in India? Anything else you'd like the listeners to know from them?

Deepa: [16:19](#) I think that it's a great place. India is growing very rapidly. One of the reports recently by the World Bank said that 70% of the India of 2030 is yet to be built. So we have a lot of construction that's going to happen over the next 10, 15 years. And sustainable construction is the only way to go. So, we cannot make the same mistakes that the West made, and ultimately it's a single planet and we're all part of it. So we have to focus on sustainability in everything that we do. And, it's a great space for people who are looking at expanding their services while looking at new markets. It's as many hands as we can have will definitely go a long way into creating a sustainable India.

Charlie: [17:12](#) You hit on something that we probably don't talk as much about as we should that here in the U.S. And in the West, we didn't have a headstart and we were able to build up our economy in a certain way. And there's discussions I've seen and documentaries with Al Gore and President Obama and President Moody about, you have so much construction coming up and what is the right way to do it? And what's fair from an economic standpoint. So it sounds like as an Indian, you realize you're going to do everything you can, that we're going to build this. It's inevitable, but let's try to do it the right way. Is that kind of the attitude there? Can you talk about that a little bit?

Deepa: [17:52](#) Yeah, I think that that's the overall attitude. A case from the industry standpoint, obviously, from the common man standpoint, his immediate needs are far more important and people don't have electricity. I think the first requirement is to get it, it doesn't matter whether it's through coal or it's through solar, but as a country we also realize that we are a very small land footprint and we have close to 1.3 billion people. So we are

on a huge resource crunch and the better we can manage our limited resources, the better the overall long-term sustainability of the economy and the country itself remains. So it's basically the right way to go sometimes. Obviously there are conflicts between what we need to do right away to what we need to do five to 10 years from now. But there's an overall understanding at every level that we have to go the right way. Long-Term, short-term, sometimes for political reasons, economic reasons, certain other decisions take place. But then overall the sentiment is people are still looking at the long-term impact. So that's a good thing.

Charlie: [19:07](#) Thank you for telling us that. It makes me happy because I know we're all in it together. You know we're counting on China, we're counting on India and you're counting on the U.S. So we've got to get it right. So my next question is if you had a crystal ball and you could see the future, what's next in this green building and sustainability movement? What should we be reading up on now?

Deepa: [19:28](#) I think that having been part of this movement for close to 20 years now, the one thing that I feel is still lacking, not essentially lacking, but we are at a short supply is the involvement of people. The larger people is part of the sustainability movement. We have the industry professionals, we have the building professionals, we have the architects, the designers. But we really don't do enough to engage the people who occupy these buildings. And also, tell our story of how we impact them. So I think that the next big agenda or the third wave or whatever we want to call this on sustainability is how do we involve the larger people to become part of the sustainable movement. Because sustainability has to be beyond buildings. It has to be beyond event communities and cities. It needs to become a way of life, a way of thinking and approach. And until we involve the larger population we will not make huge headway on that. So I think that we need to look at sustainability at a bigger level and see how do we impact these people who will be or indirectly be impacted by it.

Charlie: [20:47](#) You're absolutely correct. Do you think it's going to be education? Is that each of us have our own circle of influence and what do you think? Is it schools, is it parents. How do we maybe get that message out more that because I think sometimes when we say we have to do it or else, it's a carrot or stick situation, it's a honey or vinegar so to speak. So from your experience or have you, outside of the building industry, maybe seeing some progress with sustainability messaging,

- Deepa: [21:19](#) Education is a very important aspect. We've got lot of success with the schools and school children like I was talking about. And it really is something that they can relate to and they feel very serious about. It's actually sometimes easier to convince. In India we have a saying, if you don't understand it, then fine you're not going to understand it at 50. And I think that's the bigger challenge in terms of engaging the older folks in terms of engaging the large corporates, both public and the private players. And how do they get involved in a way that every decision that they take, they keep sustainability in mind when they do that. Like today we look at economics with everything that we do. We understand money, we understand cost and every decision is driven by cost, but it also needs to reach a point where every decision is also driven by sustainability.
- Deepa: [22:20](#) It's about a choice, but it's more of a default I think that they do. So I think that we've done well with messaging with the young kids, but not so much with the older people. Obviously that requires more than just education. It's probably, like you said, creating groups, getting them involved, making them feel as part of the problem and helping them get involved to find the solution and taking ownership responsibility is probably the way to go because it's easier said than done. But I think that's something that we really need to work on at least to get it in the long term. Right. Maybe not tomorrow, but eventually.
- Charlie: [23:01](#) Thank you for sharing that. Well let me ask you a little more about you. What's your specialty, your gift? What do you think you're best at?
- Deepa: [23:11](#) So a lot of times I've always done things that I haven't done before and sometimes even others haven't done before. So I've always believed that it's to do things not things that are easy to do, are popular to do or convenient to do, but to do things like what is right. So I think that one of the biggest things for me and something that has always helped me is the fact that you always want to do the right thing and then you put all your heart and soul to it and then you definitely will succeed. So I think that at every point, every time, depends something new, every time we've been one of the first to do it, it's this belief that doing just because it's been difficult to do or just because it's complicated, you don't run away from it, but you do it because that's the right thing to do.
- Deepa: [24:00](#) So it's like when in India we, of course read and we talk a lot about Ghandi and like Ghandi said, it is the action, not the fruit of the action that's important because many times it may not be

in your power, it may not be in your time, that there will be any fruit, but that doesn't mean we stop doing it. That doesn't mean we don't do the right thing. So we continue to do it with the hope that it will help the future generations. So that's been one of the biggest drivers for me. And that's been one of the main reasons for a lot of our success.

- Charlie: [24:38](#) Well, that's great. Do you have any good habits or routines, rituals? What helps you stay on point and stay successful?
- Deepa: [24:45](#) I think that one of the biggest things that have helped us in my family and me succeed is basically communication. You know, in terms of keeping that communication going, whether it's a client, whether it's a vendor, whether it's a construction manager, whether it's a design team, the ability to be able to respond and to respond quickly. And even if we don't have an answer right away to respond to them, to tell them that, Hey, we need a little bit more time. We will try and find a solution for you has been one of the biggest help that we've had in terms of client satisfaction in terms of market penetration. So I think that the discipline to actually do things in a structured way and to keep the communication going at all times has been one of the biggest rituals or routines that we follow as an organization and has helped us with a lot of our success.
- Charlie: [25:43](#) Thank you. That's great. I'm a fan of the bucket list and what are one or two things maybe on your bucket list, any adventure, travel, any other accomplishments out in front of you?
- Deepa: [25:56](#) I don't know about accomplishments, but one of the challenges that we are working on is we've done reasonably well from a sustainability in the building sector is concerned, but one of the areas that we really are struggling with is our infrastructure sector. That is something that I'm working on with these office program and however, in terms of trying to set a sustainability framework for infrastructure development in India because we are going to be building a lot of our plans. We're going to be building a lot of our roads, bridges, dams and a lot of infrastructure development is going to happen in the next 15 years. And as much as our buildings are efficient, we want to make sure that our infrastructure is also good. So that's something that I'm working on and that's one of the biggest challenges will be to get that to become part and parcel of our development.
- Deepa: [26:55](#) The challenge we have here in India is most of the building sector is private. So at the end of the day they are for profit companies and they understand the ROI is, and they understand

the benefits and reduced operating costs. But all of our infrastructure is government driven. So it's a completely different ball game to work with government agencies to get them to think of sustainability and develop sustainable infrastructure. So that's going to be one of the big challenges. And that's something I'm currently working with these office program at Harvard and hopefully by early next year we'll have a framework that is something that we can test and pilot for projects here in India and then see how,

Charlie: [27:45](#) Good luck with all that, it needs to be done. And you're on your right path. Just to get to know you more though, is there anywhere in the world you'd like to travel to?

Deepa: [27:54](#) I try and travel. I actually travel a lot. A lot of our work is across multiple countries and I always enjoy travel wherever it is because you get to see new places, new cultures. It's something that I personally enjoy. So we do a lot of work and I love to travel. So that's always on my bucket list to see new places and also see the good things that they are doing in those regions.

Charlie: [28:22](#) Thank you. Thank you for sharing. Let's talk about books and learning Deepa. Is there a book or two you'd recommend?

Deepa: [28:29](#) Well, there are a lot of books on sustainability and the technical aspects of green and so forth. But a very interesting book that I read recently that gave me a completely different perspective to my thinking was the book called Ikigai. It is a Japanese way of leading a life in terms of finding your purpose and it's a secret of a happy and long life. It's about this culture in a small Island in Japan. And how people use their passion and find their purpose and it gives you a reason to jump out of bed every morning and makes you want to do what you do. So it was a very interesting read. I mean it's a little philosophical, but it's also very interesting to see how in different cultures they have talked about the same things. At the end of the day it's all about finding our purpose, doing the right thing and ultimately doing things that make you happy. And it is a very interesting book and I talk about it. I also recommend to a lot of my colleagues and even my staff to read about it. It's very interesting.

Charlie: [29:49](#) We'll put a link in the podcast show notes to the book. Thank you very much. So as we start to wrap up, I've got two final questions. One is, is there anything you wish you didn't know earlier in your career?

Deepa: [30:00](#) I can't think of anything specifically, but I wish that we could do a lot more to have [inaudible speeding] the green movement. It

did take us a long time. It took us about seven, eight years in India to be able to focus on sustainability. And I wish that we had done fast tests that way we will have a much larger reach and impact. So that's something that's actually a learning that we're now taking across the wellness movement because we see that probably the time that we took for green buildings to catch on as against health and wellness, we see that to be much faster, much more impactful. So that's, that's a good thing. But I wish we had started a lot of these sustainability related activities about 10 years before we actually did in the country. That sort of put us completely on the fourth gear and be able to accelerate much faster.

- Charlie: [31:00](#) Yeah, you're right. I wish we had done all this earlier. Well in closing some of our listeners to the podcast here would like to hear just some words of encouragement as they jump into this green building movement. Anything you'd like to tell to them?
- Deepa: [31:14](#) I think that the key is you will never know what results come from what you're doing, but if you don't do anything, then there will be no results. So the whole effort is to keep doing and doing what you believe in doing the right thing. And the results will surely come. It might take a little longer sometimes. So the key is for people to hang in there and to keep giving their best and keep doing the right thing. Or like this in Japan, find your Ikaigais. So find what your reason is to jump out of bed every morning. And to be able to find your purpose at the end of the day you should do because you enjoy it and it's very important that people love what they do and then they ensure that it is done in the best possible way and I'm sure that results will definitely come through.
- Charlie: [32:06](#) It's amazing. Deepa Sathiaran from India, one of India's top 15 nature keepers, LEED Fellow, WELL faculty and so much more. Deepa, thank you for being on the podcast today.
- Deepa: [32:18](#) Thank you Charlie. I think it was wonderful to be part of this and it's a great initiative that you've put together. I'm happy to be part of this and all the very best to you on all your future podcasts and [inaudible] then there was,
- Charlie: [32:33](#) Thank you so much.
- Charlie: [32:36](#) I just want to say thank you to our loyal listeners. We actually are celebrating over one year here on the Green Building Matters Podcast. Me and the entire team are stoked and just so glad you continue to listen every Wednesday morning to a new interview with a green building professional here in this industry

or just some pro tips that we want to make sure that you are getting straight from us straight to you.

Charlie:

[33:01](#)

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