Nate Hagens (00:00:00):

Today's episode is with Taimur Ahmad, who is a graduate student at Stanford University studying international policy, energy and systems. Taimur has been a long time listener of this podcast, and reached out to me a few months ago. I went and spoke to him and his class, his students at Stanford. He is a very bright young man from Pakistan who moved to the United States two years ago.

Nate Hagens (00:00:32):

He is not energy blind, and we had a great discussion about climate, about the Global South, about energy systems and the future. I expect he'll be someone you'll hear from in the future. He is very articulate, cares about these things, and I consider him a friend. Please welcome Taimur Ahmad. Taimur, As-salamu alaykum, my friend.

Taimur Ahmad (00:01:12):

As-salamu alaykum, how are you doing?

Nate Hagens (00:01:12):

I'm great. How are you? How are things at Stanford University?

Taimur Ahmad (00:01:17):

Very good. The weather is really nice. Finally having a nice warm summer to make up for all the cold and rain that we've had over the past few months.

Nate Hagens (00:01:25):

It's possible your definition of cold and warm are different than mine, being from Pakistan-

Taimur Ahmad (00:01:30):

That's true.

Nate Hagens (00:01:31):

... and I'm from Northern Wisconsin, but I don't like real hot weather. We're going to talk about that a little bit. So, you are the first guest on this program that is still in college. You are a Master's student at Stanford, and you are the first guest who is a listener of the show. That's how I found you, and you found me. I recently was at your school. You invited me to speak, and it was a great discussion and I hope we passed the baton to some of your classmates on this topic.

Taimur Ahmad (00:02:09):

Yeah, I thought that was such a wonderful opportunity, especially I think here where so much of the talk around climate is around technologies and entrepreneurship, I think your talk was just a very good way for people to conceive of the problem differently. I think the feedback was great. People are like, "Oh, I never thought about it this way." That was the point of the whole conversation. So, thank you for coming.

Nate Hagens (00:02:32):

Well, education is important, which is a main reason that I'm doing this work. So, welcome. You have lived in the United States, what now for a couple of years with your studies?

Taimur Ahmad (00:02:51):

Yep, for a couple of years.

Nate Hagens (00:02:52):

You're academically very successful. You're a graduate student studying international policy, energy systems and development, but you were born and raised in Pakistan. What are your observations, having been here for a couple of years, just being aware of the energy, climate, money, economic, environmental systems that you're learning about, what are your observations of how the two cultures between the United States and Pakistan differ? Do you think there are things that we could learn from each other facing the human predicament?

Taimur Ahmad (00:03:33):

Yeah, I think it's an interesting question because I left Pakistan as a 17-year-old moving away for college. So, my experience is defined by the first 17 years that I spent there and then going back every year to visit family and friends. I think just seeing Pakistan has been a wonderful example almost of the good things and the bad things about our system and the country itself.

Taimur Ahmad (00:04:00):

I think in particular, Pakistan is a case study for how the global system has left some of the largest countries in terms of population size, countries where there are often natural resources, fertile soil, access to water and everything, yet these countries have been left in this deplorable development state. I think growing up in Pakistan, it was always about like, okay, we've hit rock bottom, and things will always just go up from here. We don't have the electricity for 12 hours a day, but we can only get better from now.

Taimur Ahmad (00:04:32):

But I think just having the privilege, of course, of seeing it from the outside, it has considerably gotten worse I think. There's a lot about the global system, the material reality of the system that we live in, the ecological crisis, that stuff keeps pushing the system lower and lower. So, that rebound that everyone expects I just don't think is happening, because the system is still operating the same way. I think also very early on changed my thinking in terms of the things that matter are material resources. So, I think just growing up in a situation where stuff like electricity, availability of food, et cetera in a country just makes it very hard to do normal things, to engage in commerce, for development as a country with a very young population.

Taimur Ahmad (00:05:24):

So, I think that is really brought to the fore, how important these core development things around material goods, energy/electricity are. I think that surprisingly translated according to how I saw the US over the past two years. I think I was surprised by just this sheer level of inequality in the US, especially in some of the big cities. I mean, we see all the movies and heard the stories and read the reports, but just to see it in person was a bit surprising.

Taimur Ahmad (00:05:54):

Also the scale of infrastructure, the level of polarization I thought was quite surprising. I think in Pakistan, politics does divide people a lot, but I think even with that background, the level of polarization in the US has been even more surprising. I think there are some interesting parallels between the two countries to explore and learn from.

Nate Hagens (00:06:19):

So from an energy perspective, when you came here, you probably didn't know as much as you know now about energy, but what was your emotional reaction the first week or two that you were here seeing... I think the data is Pakistan has 200 million people, we have 330 million people. So, we're 50% larger, but our GDP per capita is 45 times the average in Pakistan. Did it just look like opulence or extravagance or waste, or what was your reaction?

Taimur Ahmad (00:06:59):

I think the right word for my initial reaction was waste. I think the two cities that formed my first experience of the US were New York and then the Bay Area, Palo Alto, San Francisco. These are very prosperous, extremely well-developed, very opulent cities, but just the level of inequality, the level of waste that you see in the system, I think this is part of the American consumerist culture around everything's supersized, everything's very big, everything's single-use. Costco shopping is such a quintessentially American experience.

Taimur Ahmad (00:07:38):

I think I just never framed development in that way. That prosperity and waste are almost two sides of the same coin in the system that we live in. The more you consume, the more prosperous you are, but the more you consume also means that there's more waste in the system and it comes from somewhere, it has to go somewhere. Those two things we don't often think about when you think about development and prosperity.

Nate Hagens (00:08:05):

So, you mentioned electricity shortages when during your first 17 years growing up in Pakistan. Is that something that the average person living in Pakistan has become used to? Is that still the case? Has it gotten worse? How many hours a day would you have electricity growing up, and would it be the same hours that you could rely on or was it totally random?

Taimur Ahmad (00:08:38):

I think it ebbs and flows a lot. I think when I was growing up, we had I think the worst times where you would have one hour on, one hour off type of system. It was just such a part of people's social psyche. We were planning social events around this schedule. It'd be like, "Oh, I have to watch a football game at 8:00 PM," go to a friend's house, because they will have the electricity that hour, or something like that. I never even felt the extremity of it I think, which is part of my privilege as well, because I left Pakistan, so I can look back. I think it did get a lot better over the past decade, I would say.

Taimur Ahmad (00:09:16):

But I think over the past three years with the supply chain issues, with energy issues, with the increasing energy prices and the lack of access to fossil fuel resources has caused a problem. Again because Pakistan I think imports one third of its energy in oil, natural gas, coal, and then any changing prices leaves Pakistan on the bottom end of accessing affordability for those resources.

Nate Hagens (00:09:40):

So, do you have a view or can you describe the impact of the Ukraine/Russia/NATO war on the economic and energy situation in Pakistan?

Taimur Ahmad (00:09:55):

Yeah, I think that and coupled with the fact that around the same time, Pakistan experienced these devastating floods where one-third of the country was underwater. So, I think the one-two punch of those has been quite detrimental. So for example, Pakistan is a net importer of food, even basic things like wheat, which is the largest source of calories for Pakistan, despite being a very agrarian society. So food inflation

has been a major problem for Pakistan. I think food inflation is at 50%, has been over the past couple of years.

Taimur Ahmad (00:10:28):

So that combined with the increased cost of energy, lower availability of electricity has been so very detrimental to the situation, and has kicked off this cycle where industries were shutting down, people have less things are being produced in the country, then that makes this trade imbalance debt thing even worse. Inflation causes all these social developmental problems, that causes a social political crisis, unrest, and the cycles of feeds off itself. I think that concept of cycles getting kicked off and then just spiraling out of control is something that Pakistan and some many other countries in the Global South are now facing.

Nate Hagens (00:11:14):

So, you and I have both been fortunate enough to visit many countries and live in different countries, which offers us a perspective on things, but many people living in the United States have only lived in the United States. How do you feel now having lived here for two years, when you just look at the energy abundance around you at the university and the cities where it's reliable 24/7 access to electricity and all sorts of related energy services that are getting more costly but still really abundantly cheap for most people? Do you feel guilt or privilege or anger or what is your feeling now knowing about the importance of energy to our lives living in the United States?

Taimur Ahmad (00:12:16):

I think I would say there are three things to that. The first thing I would say is the funniest story is when I first moved to Stanford, I think within the first month, there was a six-hour power outage because of some wildfire had disrupted the grid. So that was quite funny. Just coming to California all this prosperity and then facing a blackout again was quite funny, but I think the three things about energy that have become very important is A, just obviously the importance of it and the concept of energy surplus that you talk about a lot, and how foundational it is to any other form of development. The second point is about inequality even within societies.

Taimur Ahmad (00:12:54):

So even in this part of the US, there's so much energy inequality in terms of the access people have to those resources, and it's not just the electricity, it's about heating, it's about imported energy in the goods we consume and the services we consume and so on, so I think that has been a very important thing. The third thing has just been this conversation around de-carbonization without actually talking about energy as a foundational aspect of that, I think here there's so much conversation around, "Yeah, all we have to do is replace one megawatt of energy from natural gas with one megawatt of solar energy."

Taimur Ahmad (00:13:38):

That's a simplistic equation, I think has really triggered what I now think about and write about is it is not that simple. Everything changes when you move from one megawatt of natural gas to one megawatt of solar energy. So the complications in that system, how complex this transition or this change or this systemic breakdown is I think is something that I've really come to appreciate over the past few years.

Nate Hagens (00:14:04):

I think a lot of people view natural gas power plants and solar photovoltaic, they view those as technologies. They don't view them really as energy. So, I do think there is a giant chasm of misunderstanding the relationship between energy and technology and the relationship on energy and money, and on the relationship between energy and human wellbeing and brain services, et cetera. So when you were here and that power outage happened, it was surprising to you but also no big deal to you. So growing up in a life of intermittence, do you think that that has impacted your psychology and your resilience as a human being?

Taimur Ahmad (00:15:04):

Yeah, I think that the word resilience is a double-edged sword for many people who are from the Global South, because there is obviously a higher level of resilience, just having grown up in certain circumstances. But I think that resilience can also become almost this toxic cycle of, "Oh, we're resilient, we can take this," versus saying we need

to change, we need to improve, the system needs to be better. So I think there is that resilience but that resilience is sometimes worn as a badge of honor when it should actually just be a force of change and a force of action.

Nate Hagens (00:15:44):

So, what do you like most about the United States?

Taimur Ahmad (00:15:52):

Well I think there's just this tremendous amount of energy, especially where I am here in the Bay Area about being very action-oriented. It is a very entrepreneurial space, and I think that energy gets you thinking about "Okay, we have some understanding of the problem, what can we do about it? I think that energy is very important. I think the second thing is just the diversity that exists. It helps to have people from different backgrounds occupy the same space, because the types of conversations you end up having are enriching for all the people involved.

Taimur Ahmad (00:16:32):

I think one of the comparisons here with Pakistan is especially in the social elite or the urban areas that we have can be quite homogenous. So, that critical thinking or that pushing you outside your comfort zone doesn't happen because marginalized communities are so peripheral in the system and the core parts of the spaces you occupy actually tend to be quite homogenous. Versus here there's still some more diversity of thought, even though I think polarization has made that quite hard, and having conversations across the spectrum on difficult topics has become I think just harder in even the past two years that I've been here.

Nate Hagens (00:17:14):

So, you know you've followed my work for a while and you know that I talk about wide boundaries. There is within country inequality, there's between country inequality. I mentioned that the average GDP per capita in the United States is 45 to 50 times Pakistan.

Nate Hagens (00:17:35):

There's between generations, intergenerational inequality, and then there's of course interspecies inequality, that we don't include the whales or the insects or the orangutans in our economic decisions. In Pakistan itself, is there a lot of inequality within the country or is it less so than in the United States?

Taimur Ahmad (00:18:03):

I think there's a tremendous amount of inequality in Pakistan across many different social identities and demographics. I think obviously, there's a lot of rural/urban inequality. There's a lot of inequality across the four provinces. There's a lot of ethnic inequality, there's a lot of gender inequality, and I think this system is just built around recreating those inequalities as a political and social power process. I think access to resources is one of the ways in which that equality is maintained and reinforced.

Taimur Ahmad (00:18:39):

So for example, taking over farm land from small farmers, from people who've been on those farms for a long time and are poor has been a very common practice in terms of establishing both political, material, and social dominance in those regions. The institutions that govern Pakistan have all the power, have been systemic land takeovers, either to take over those farms as farmland, but more so to develop housing societies, real estate, and so on. So, there's a strong interlink between social inequality and material inequality and how they both reinforce each other.

Nate Hagens (00:19:21):

I've never been to the Indian subcontinent, so I don't know a lot about Pakistan. I assume it's quite hot there, at least in the southern parts?

Taimur Ahmad (00:19:32):

Yeah, it's quite hot in most parts, except for the north mountainous areas.

Nate Hagens (00:19:38):

So, how are people responding to as yet not too much of an increase in temperatures but certainly a higher standard deviation of heat waves and rain events, like you mentioned, how are people responding to that? What is the awareness or dialogue of

climate change in Pakistan? What percentage of the population has access to air conditioning? And if they do have access, is it intermittent, based on what you said earlier?

Taimur Ahmad (00:20:15):

Yeah, I think even though the temperature might not have changed as much over the past 10-20 years, I think the feeling of extreme heat has really hit the subcontinent very hard. I think the fact that it is not just 50, 51, 52 degrees Celsius in the summer, and for increasing parts of the summer, it's also the wet-bulb temperature of the fact that it's a combination of humidity and high temperatures that are causing this crisis.

Taimur Ahmad (00:20:44):

I think the increasing level of just concreteness in the cities where there's so much urbanization, it traps heat and these cities become extremely hot. That is combined with the fact of increased cars on the road. They also increase heat, increase deforestation again for real estate and so on. So, the problem of heat I think has exacerbated a lot over the past few years, and I think there's a higher recognition of climate change than people on the outside would expect.

Taimur Ahmad (00:21:21):

So for example, after my undergrad, I spent a year and a half working with very poor farms in Pakistan on a research project. It was about agriculture development and they were suffering from extreme heat, irregular rainfall patterns and so on. To my surprise, and to the surprise of the researchers who were on that team, the people on the ground who do not have access to roads and drinking water and electricity for example, were quite cognizant of the fact that there's something changing about the weather and the climate.

Taimur Ahmad (00:21:57):

So, I think for all the way from there to the people who started this formally in education, there is increasing recognition. But it's such a complex topic that is interwove with so many of the other crises that we face at the same time that it

becomes quite hard to either focus on it or just isolate what the climate crisis is from all the other crises.

Nate Hagens (00:22:19):

What percentage of the population has access either at work or at home to air conditioning?

Taimur Ahmad (00:22:26):

Oh, yeah. I don't have the exact number but I would say can not be more than maybe one-fifth, primarily at workspaces, I would imagine. I think the intermittency of energy is actually a big problem. I think there are funny... Well, funny in a tragic sense, and it talks about how having air conditioning in your office space is actually one of the negotiation tactics that many people use about, "I want a promotion, I want an office with an AC."

Taimur Ahmad (00:22:56):

So, it has been interwoven into the social/political power dynamics. Heating and cooling on the other side has become such an important part of survival and class and privilege that it is a conversation people actively have in the workplace as well.

Nate Hagens (00:23:12):

So, energy privilege is part of your culture?

Taimur Ahmad (00:23:18):

Yeah. I think there's a extreme funneling of material resources towards people at the top, and there's a wide, wide base of people at the bottom who don't have access to those resources.

Nate Hagens (00:23:29):

So, let me ask a few more questions about this. I know we want to talk about your newsletter and some other things, but I'm very curious. So, does the average person or does some percentage of the population in Pakistan understand the concept of wet-bulb temperature? They may not call it that in Urdu or Pakistani, but they know

that it's the combination of heat and relative humidity is dangerous to human lives. Is that a common thing that people know?

Taimur Ahmad (00:24:04):

I think it is a common thing. It is one of those things that guess gets passed down as conventional wisdom as some of these tactics that people have adopted from previous generations. So, there is quite a recognition of the fact that humidity can be quite lethal. So how to keep yourself cool, how to use water in a smart way to cool yourself, how to shade yourself.

Taimur Ahmad (00:24:31):

It's one of those things again, going back to your initial or earlier question about resilience, people are forced to survive and the acclimate to the conditions they are thrown in. So the people of Pakistan, as people of many other Global South countries, have obviously found ways to survive the system. But I think that also feeds into this then crisis about we want to move up in the power scale rather than we want to change the system itself.

Nate Hagens (00:25:03):

So, what about maybe not the average person in Pakistan but at least the educated people in college that are studying ecology and climate and other things, what is the attitude towards the Global North? Partially because the Global North has been responsible for 80% plus of the emissions, and also the Global North is responsible for the war which stopped the Russian gas flowing to the open markets, which meant that the highest bidder would get the surplus gas and Pakistan was not the highest bidder.

Nate Hagens (00:25:44):

It's a double whammy. Is there an anger or a blame, or is it just like, "Well this is our life and our challenge and we have to get through it and we're just trying to survive?" What can you tell me about that?

Taimur Ahmad (00:26:06):

I think it's a complicated question to answer, because there are two forces at play simultaneously. One of them is about there's a large brain drain of emigration outside Pakistan, and most of those people, especially those who are educated and have high skills want to move to the Global North in order to have a better life for themselves.

Taimur Ahmad (00:26:33):

So there is this level of looking up to the Global North in terms of there's a better life for us there, and we want to go there. At the same time, there is all the things you talked about. There's a history of being explorative, there's a history of intervention. There's a very complicated geopolitical story to Pakistan's history over the past 76 years. So, that makes a very hard question to answer, but I think it increases a lot when social crises are at play, times like now when there is such a stark social development crisis, where people are really being pushed to the boundaries of what is required for survival in material terms.

Taimur Ahmad (00:27:19):

That anger really bubbles over towards everything, both towards the system domestically but also the system internationally. I think because the challenges are so complex and so interwoven across climate and energy and economics and social and political, it's just anger at the system without really mapping out what parts of the system and where are we actually angry at. I think that's a perfectly rational response in a situation where you are also pushed against the wall so much.

Nate Hagens (00:27:57):

What about yourself? Because now you do understand the whole system and how the pieces fit together and the history that brought us to this, do you have anger? What are your emotions after understanding the history of energy, climate, human behavior, the economy, the Global North and South that brought us to this juncture?

Taimur Ahmad (00:28:21):

I'll answer that question in two parts as well. I think there is one framing where it is the Global North versus the Global South. I think there is no question about the fact that both in the past and in the present, and potentially the future. Development in the

Global North is built on the backs of the Global South, whether it's direct exploitation and extraction through colonial times or in the postcolonial system that we've had for the past 70-80 years, the Global North has taken more from the Global South to develop itself.

Taimur Ahmad (00:28:55):

Developers may be the wrong word to use, because the Global North is in aggregate past the point of development and now is in this realm of over-consumption and waste. But this whole system is built on the backs of the Global South. So I think there's... I won't say anger, but it's more about just recognizing the fact that the story that we have been fed where, "Okay, the Global North developed this way, here's what you need to do to get there as well," is just a false narrative. That is just almost completely fiction because it implies this linear mode of development where Global North is ahead, and all the Global South has to do is catch up versus recognizing that it's actually dependent. They are relational.

Taimur Ahmad (00:29:40):

The Global North is dependent on the Global South being constantly developing or being underdeveloped, and there is actually no conceivable way for the Global South to catch up with the Global North in that system. I think that's the difference between modernization theory and dependency theory. So, that's one. I think the second angle to that, which I try and remind myself is it's not just between countries, it's between class, and I think class struggle and class warfare is a very important analytical framework for the climate crisis, for ecological issues, for just socioeconomic development issues as well.

Taimur Ahmad (00:30:19):

I think recognizing the fact that there is this global elite that is quite interconnected even across class, even across countries, and that class of a very small number of people consume way, way more than what you would think is a fair distribution of resources, and that there's a system that perpetuates that constant funding of resources from the 99% to the 1% or the 0.1%.

Nate Hagens (00:30:49):

What do you think about the increasingly popular and also polarizing de-growth movement?

Taimur Ahmad (00:31:00):

Yeah, so I think de-growth, I would just start off by saying it makes real sense. For me, I think it's just arithmetic, where there is something, there are these biophysical limits. The Earth has a very specific carrying capacity in terms of the energy resources that we have access to, the materials that we have to access and use that energy, the land that is available and so on.

Taimur Ahmad (00:31:30):

So, there is this boundary that we have that de-growth I think does a good job of recognizing, or building on the literature of ecological economics that has recognized this over the past 50-60 years. Then after that, it's just about arithmetic. It's about saying, okay, how do we divide up these resources? That's all I think de-growth is talking about, is saying right now, a small group of people have access and use up most of those resources.

Taimur Ahmad (00:31:58):

So, if you want to develop the poor, the working class, the underdeveloped, they need a greater percentage of those resources. So, it's quite simple. The people who are consuming more have to consume less in order for the people who are consuming less to be able to consume more, and reach what should be some minimum decent level of welfare and wellbeing. I think there are just way too many people, even within heterodox or leftist schools who mischaracterize de-growth as austerity or recession or some primitive utopia where they want to take us back to 1,000 years ago, but that is not what de-growth is at all.

Taimur Ahmad (00:32:41):

It's just the simple arithmetic around there's this boundary that we must acknowledge and recognize and come back into to survive as a species. Then after that, it's just a question of who gets what in order to meet their basic goals of welfare and wellbeing.

Nate Hagens (00:32:58):

Well, if it's really about survival as a species, it's possible that some countries will continue to grow and others will de-grow. I actually think that's the default. Unless we have a world war or a financial recalibration, then the whole system is going to de-grow, and I refer to that as post-growth. Do you see any way that either a nation like the United States or France or any nation could voluntarily in their governance and political structure choose to de-grow, or are we going to have to respond to a post-growth scenario at some point in the future?

Nate Hagens (00:33:50):

A second part of that question, is there any governance or international institutional viable pathway where the Global North meaningfully muzzles their growth prospects in order for the Global South to have more access to basic needs and just a viable existence? Big question.

Taimur Ahmad (00:34:18):

Big question. I think this is the question I think I've spent most of my time on over the past couple of years. So, I will answer that first in an intellectual/historical way, where I think I've been very hard-pressed to find examples of social reformation or change that has happened voluntarily by the people in power. It almost never happens. Whether it's a social issue or economic issue, and those are often tied together, but the people who have it good are not going to voluntarily give that up.

Taimur Ahmad (00:34:54):

There are efforts to say, "Okay, we need to be more just and more fair." But I think because those efforts and those conversations, and this is one specific reason why I'm quite critical of the climate movement as it exists today, but these efforts don't challenge the fundamental structures that have caused this disparity. So I think unless those structures are dismantled and changed, there's almost no point in doing

arbitrary small-scale voluntary things like, "We'll give you \$10 billion to do this solar energy project in some Global South country." I don't think that changes anything at all, because the system is designed for extraction and growth in a one direction way. So, that's the historical angle.

Taimur Ahmad (00:35:42):

I think if you just look at what has happened over the past year, I think the return of industrial policy in the US, the EU has already been doing this, shows that these countries are onshoring growth. They are trying to make their own growth and development more robust by onshoring industries, no matter what the cost is to the rest of the world. So I think there's evidence that there's no viable plan or even desire for there to be a reduction in the consumption of resources.

Taimur Ahmad (00:36:18):

All this talk about de-carbonization, the Green New Deal, et cetera, is just to say consumption is good, we can consume more. We just have to replace this fossil fuels with renewable energy and our way of life can continue. So I think both based on the evidence and historical fact, I just don't think there is a way this could ever happen.

Nate Hagens (00:36:39):

Do you simultaneously thank me and curse me for the knowledge that you've gained from this podcast and reading my books and such? Because I imagine you have a minority view at very techno-optimist university generally, and I imagine debunking some of these things that you're mentioning is potentially making you unpopular as a graduate student. Is there an air of intellectual freedom there that you can say these things? Do you have thoughts on that?

Taimur Ahmad (00:37:17):

Yeah, I think I am quite inspired by a quote by Gramsci where he says: "The challenge of modernity is to not suffer from illusions without also suffering from disillusionment." I think that is basically the struggle of our time, where we have so many illusions about how things works, even when you're trying to make something better, the

illusions get in the way. I think I would unequivocally thank you for debunking some of the illusions that I had, despite being quite critical of the system to begin with.

Taimur Ahmad (00:37:56):

Just because it helps being less disillusioned. I think knowledge helps solve disillusionment, anger, hatred, polarization. That's the case, what I believe in part of what my efforts on campus through writing wherever is just to make people aware that we all have this sense of anxiety and despair and uncertainty about the future, but knowledge I think helps alleviate some of those pressures.

Taimur Ahmad (00:38:24):

That's why I think even though most people who I've come across are in this techno-utopian world where we can have it both ways, we can have our way of life, we can make a profit and solve this crisis, that is at odds with some of the debates and discussions that I have on campus. But I think it is enriching to hear some people in return say, "I never thought about it that way, and I'm going to change some of the frameworks that I have to make sense of what I do."

Taimur Ahmad (00:38:57):

So it's incremental, it's very small, it's very hard to fight against an entrenched system of knowledge and power that exists, but I think it is about having those small changes and then hope that there is a butterfly effect at the end of it that cascades it forward.

Nate Hagens (00:39:14):

Well said. I agree. So, you mentioned in your writing you have a newsletter at Stanford called Fictitious Capital. Can you tell me what Fictitious Capital is and how that might map to what I refer to as the polycrisis?

Taimur Ahmad (00:39:35):

Yeah, so Fictitious Capital, I chose it as the name of the newsletter because I think it's a fun word. It tells you what it means in some ways, which is that there's capital out there that is fictitious and it comes from Marx, Volume III of Kapital where he was talking about it in a very financialized sense, where there's something that is

productive capital, capital that we need to invest, that drives production and growth, but then there's fictitious capital where the monetary financial value of the asset is divorced from the underlying capital that asset is supposed to represent.

Taimur Ahmad (00:40:19):

In some ways, I think that's quite intuitive in the world we live in today, where you have companies that are worth tens of billions of dollars one week and are gone the next week. So, this concept of there being extreme speculation or in the 2008 Financial Crisis, it was the same thing. Mortgage-backed securities, the value of them was not accurately reflecting the assets that they were supposed to represent.

Taimur Ahmad (00:40:44):

So I, in my working, in my thinking take this and apply it to almost this knowledge capital that we have, basically to say that we have theories and these models that we use to discuss and debate, and those things and models are supposed to represent the underlying reality of how the world and the system works. But I think there's a lot of fictitious capital in that system, because our models and theories and narratives are so divorced from how the world actually works where this material base layer that you talk about all the time means and operates differently to what our theories and narratives then say.

Taimur Ahmad (00:41:26):

So our debates and discussions are almost moot. They're intense and people get very worked up about them, but none of the sides are representing what's actually happening. That I think has a very important tie to this metacrisis situation because there's this complex crisis going on, so many things happening at the same time and we argue and debate about what we should do and who is responsible, but this layer of fictitious capital veils the true workings of the system and how we got here. So, there's no point I think in having these intense political discussions about the way forward if you don't understand how energy, equity, or resources work and create everything in our society.

Nate Hagens (00:42:11):

As a graduate student and I used to be a professor, give me a two or three-minute elevator pitch of how you would describe the metacrisis to someone. For bonus points, just start for the first few sentences in Urdu because I would like to hear you speak in your native tongue, and then go switch back to English.

Taimur Ahmad (00:42:34): That's a tough proposition haven't done this in a while. Nate Hagens (00:42:39): Well, I won't be able to correct you if you're wrong. Taimur Ahmad (00:42:45): Yeah, speaking since we're doing this in formal sentences is tough, but [Speaking in Urdu] Nate Hagens (00:43:25): Just get close. Taimur Ahmad (00:43:44): That was agree a shoddy job of doing-Nate Hagens (00:43:46): l agree, l agree. Taimur Ahmad (00:43:48): Urdu. I should work on that, actually. Nate Hagens (00:43:51): I only know a few words in Urdu and they're very bad words that I learned from cab drivers in Chicago. So, I'll tell you off-camera.

Taimur Ahmad (00:43:59):

That's what everyone learns the first time in Urdu.

Nate Hagens (00:44:02):

For sure. So now in English, give us a summary. How do you view the metacrisis in your own words?

Taimur Ahmad (00:44:12):

Yeah, I think the metacrisis or the polycrisis is a hard category to pin down because in some ways it's about, okay, what's new? We've always had multiple crises before. I think what's special about this category is the fact that they are not just one or two, but I think the formal definition is three or more systemic crises happening at the same time. So geopolitical, ecological, financial, social and so on happening at the same time. On top of this, these crises have feedback loops. So one crises makes the other one worse, and this happens in this circular way. Then they also amplify the impact of each other.

Taimur Ahmad (00:44:55):

They exacerbate the impact of each other. This I think is the analytical, more material sense in which we understand the polycrisis or the metacrisis. But I think there's an additional element here, which is that it represents a crisis of understanding. We use this vague term because it's quite hard in our vocabulary, our frameworks of knowledge to just map out how complex and how difficult and the scale of this crisis actually and so is. I think the important thing to take away from this is it marks a change from there's no going back to normal.

Taimur Ahmad (00:45:41):

That I think is critical to understand that we have had a system for 50-60 whatever years, we've had disruptions, financial crises, the pandemic, and we keep trying to say we need to do this or go back to normal, but there is no going back to normalcy in the time of a polycrisis. Everything will be different. How it will be different is for up to us to debate and decide.

Nate Hagens (00:46:02):

So, what do you think about the current policy initiatives that attempt to address one facet of the polycrisis, which is climate change?

Taimur Ahmad (00:46:15):

Yeah, I think it's quite insufficient. I think just the problem statement itself is very narrow and there's a reason for this. I would say that this is what the system that we live in does to any movement that questions the system. There's almost a three-step process. It first opposes this new movement, it antagonizes it, debunks it. That's what the ecological movement was going through in the 60s and 70s and the 80s, then it paralyzes the movement.

Taimur Ahmad (00:46:48):

It tries very hard to make it a nice, simple packageable thing, which I think is why the ecological crisis became this global warming crisis. It's all about CO2 emissions, not about waste or plastics or materials or biodiversity or any of these other things. The third stage where I think we are now in is it co-ops that movement. So, now being green and talking about de-carbonization is what everyone has to do.

Taimur Ahmad (00:47:17):

That's the in-thing. People keep saying de-carbonization is the next big investment opportunity. So, that's why I think this movement has become co-opted, it has become divorced from the radical changes that this movement was asking for in the 20th century for example, about distribution of resources, a strong cultural and social shift, not just a technocratic change, these policies have some more investment type of change, but change our way of life, change how our societies are structured and designed, who gets what.

Taimur Ahmad (00:47:52):

And have a very deep transformation in our way of life, and all of that has been stripped away into there's a climate crisis, bring emissions down, have renewable energy, have carbon capture hydrogen, and we'll be fine. I think it's a perverse way of looking at what is a very complex and very existential issue.

Nate Hagens (00:48:14):

If you were my student, I would've given you a strong A for that answer, Taimur. So while speaking of that, I imagine in your classes in undergrad and in graduate school, you have classes talking about climate change. Are the responses at the end of the semester, okay, the teachers told you about various climate scenarios and how emissions are acting as a blanket on the Earth, and what are the impacts?

Nate Hagens (00:48:44):

But at the end of the semester, do they talk about economic systems change and de-growth and living with less, or are the responses like you just said, hydrogen decarbonized through technology? Is that the extent of it, or is there a behind the scenes implicit or explicit conversation at high profile universities like Stanford on this is going to be a much deeper ask?

Taimur Ahmad (00:49:14):

No, I think the conversation is fully around how do we make this into a win-win situation where there's this movement, how do we jump on this bandwagon, and make moral progress, social progress, while also keeping the system going and making money and profiting off it? Just the simple example is the new sustainability school that was announced last year at Stanford, this big investment, huge endowment from John Doerr.

Taimur Ahmad (00:49:43):

It's supposed to be this flagship sustainability school for all other universities. The main priorities are around carbon capture, geoengineering, advanced rigging for oil and natural gas, like arctic drilling and so on, and then hydrogen. I think that tells you all you need to know about just the general mindset and where people are with this conversation. The big pieces of this podcast, and there's a whole network of people that for example, you've interviewed, there was this de-growth conference in the EU parliament a few weeks ago.

Taimur Ahmad (00:50:21):

So we have all these signs of progress, but all the institutions, both universities, people and institutions that hoard the financial capital, et cetera, their mindset is just completely in a different space. I think it'd be quite hard to get to a point where it's like, well, the notion of system change, not climate change. That tagline should be the tagline of this movement, not about de-carbonization as the next big investment opportunity.

Nate Hagens (00:50:49):

I totally agree, but I think system change, not climate change, perhaps by definition, could never flourish within the academy, especially at high research donation universities like Stanford and Harvard. In many ways, those types of universities are miniature superorganisms in themselves that are kept going by donations from corporations, doing research on geoengineering, et cetera.

Taimur Ahmad (00:51:22):

Fossil fuel companies.

Nate Hagens (00:51:24):

Yeah. So, when are you graduating? Are you almost done?

Taimur Ahmad (00:51:29):

Yes, yes. I think by the time this interview comes out, I'll be done.

Nate Hagens (00:51:33):

So, we could say more disparaging things about Stanford and you wouldn't be in trouble? I'm kidding. I'm kidding. I mean, Paul Ehrlich is a friend of mine and he says disparaging things about Stanford all the time because of the research dollars and the lack of ecological awareness on how the system fits together. So do you think there is a way for a true ecological movement to move forward without the support from other social issues like class poverty, homelessness, or how do you see all those issues interrelating as the years and decades unfold?

Taimur Ahmad (00:52:15):

Yeah, I think this is the crux of the problem, which is to say that too much of the climate movement right now suffers from attacks from climate deniers wherever, by saying, "Oh, we can't stop for example, oil extraction. What about all the jobs? What about all the working class people who work in those communities?"

Taimur Ahmad (00:52:35):

It's the same thing when it comes to people saying, "Okay, the Global South needs to stop using all these fossil fuels, places like Pakistan, India, China, who have these big populations needs to move away from fossil fuels." The question is, what else will those people do for development or for jobs or for incomes? So there is only one way forward, if at all, for the climate movement or the ecological movement, which is to become much more integrated with critiquing the economic system that we live in terms of how those resources are distributed, how value is accrued, and who gets to profit off that system.

Taimur Ahmad (00:53:14):

I think the important point here, and there are people on who are a part of ecosocialism for example, who are working on this by saying the good thing about the polycrisis in some ways is that you can say that it's part of the same crisis. This is a crisis of capitalism, a crisis of accumulation, a crisis of English consumerism and growth. So, they're not two different crises coming together. There are actually symptoms or outcomes of the same crisis, of the same cultural, philosophical and economic system that we have.

Taimur Ahmad (00:53:53):

So, in order to solve either of these solutions, we need to tackle the system, so there's a natural synergy between many of these topics that we need to focus on. I think just the second thing I would say about that is just from a more emotional standpoint, there's this affect theory, and affect theory is just how intangible forces affect our emotions.

Taimur Ahmad (00:54:16):

For example, if you walk into a room or if you walk into a sports stadium, even without you looking at the score, you can just tell whether there's tension in the stadium or not. I think today, Pakistan, the US, other places, there's just so much anxiety and despair that people across the spectrum have. The climate movement is a great way to bring that together by saying, "This loneliness and depression, anxiety, and lack of self-worth, all of these things that we are suffering from and facing are caused by these multiple crises, whether it's ecological material, economic, social, et cetera."

Taimur Ahmad (00:54:57):

So to bring all of those emotions and feelings together and to say, "Okay, these emotional feelings are being caused by the system, they are not because of individual issues all the time or you don't know how to deal with your emotions, stuff like that. They are caused by material forces." So, I think there's a lot of ways to approach the fact that there's synergy across all of these topics.

Nate Hagens (00:55:21):

Is that the root of all of this, is that we currently have a culture and a perspective of humans holding dominion over nature?

Taimur Ahmad (00:55:34):

I think so. I have this strong opinion that what happened in the 17th and 18th century is the enlightenment was a fundamental breakaway from how societies used to think or how humans used to think of themselves in the past. There was this concept of we've unlocked something special in science and rationality that we are now divorced from nature and the ecology that we've existed in for so long. I think that break led to this concept of consumerism, individualism, and just hubris about the fact that we can make it, we don't need anything else.

Taimur Ahmad (00:56:16):

Human ingenuity is enough. I mean, even everyone knows Hobbes, Locke, the state of nature and it's brutal, it's harsh, this concept of there was this state of nature that we were in and now we've overcome nature to be this refined, rational human being reflects this type of thinking. I think that is deeply problematic. Yes, we again move to

take the climate issue into that philosophical, cultural lens. It's going to be very hard to connect all of these issues and build enough energy in this movement to make the changes that we need to make?

Nate Hagens (00:56:55):

Going forward, do we need religion? What is the role of religion and culture change in your opinion?

Taimur Ahmad (00:57:05):

Yeah, I think that's super interesting and a topic that is not talked about enough at all. Because I think if you look at the big religions, the ones that I'm most aware of is the Abrahamic faiths, they all have a very strong emphasis on human beings as an integral part of nature and protectors of nature as this sacred creation. Primarily my being Muslim, I think there's a strong emphasis on the fact that everything is God's creation, has that Holy Spirit.

Taimur Ahmad (00:57:44):

So to be cruel to nature, whether it's animals or plants or the land in general is immoral, in so many ways. I think it is that sense of having a greater purpose that I think ties together where I've been talking about with affect theory and anxiety and loneliness and the material crisis as well, where consumerism tries to fill this hole that we all have inside of us of meaning and wellbeing, and feeling like we're worth something.

Taimur Ahmad (00:58:13):

But religion I think is one of those ways where you can fill that gap and feel happy and content in a way that is integrated with nature by recognizing the importance and the value of all of the natural world, and not just humans as superior and everything else is there for our exploitation. So having this custodian type of lens towards humans and humanity as opposed to the enlightenment lens of, "This is there for us to extract and exploit. Let's come up with ways to do that." I think religion is one way of reframing that problem and having a broader support base for this.

Nate Hagens (00:58:53):

So I mentioned, I've never been to Pakistan and I hate to admit this, but when I think of the country of Pakistan, the mental images that come up are the images of the floods a couple of years ago and the devastation. Could you describe to me in your own experience of some beautiful natural aspect of the natural world, a region or a forest or somewhere you've been in Pakistan? Could you describe some of the natural beauty in your country?

Taimur Ahmad (00:59:27):

Yeah, Pakistan has abundance of natural beauty. Everything from having an ocean at the sea and beaches in the south to having the Himalayas in the north and everything in between. There are these very lush green areas in the middle that are very fertile, so there's farming activity that happens there. The north is just extremely beautiful. I highly recommend going there. It's like being in some of the national parks that I've seen in California, which are obviously very beautiful, but sometimes just that there's so much potential of having those places be accessed in an eco-friendly, eco-touristy way. You have these luscious green forests up in those mountains.

Taimur Ahmad (01:00:14):

You have rivers flowing through them. You have a community there that's very in touch with their ecology and the natural systems that are there. So, there is a beauty in nature, and a way of living that is in touch with those natural systems that exist in Pakistan. But I think just this process of consumption and consumerism and real estate and we need to build out infrastructure is destroying all of that.

Nate Hagens (01:00:47):

So, this has been great. I would like to ask you some personal questions that as a longtime listener of my show, you can guess, but I'll start with this one. You mentioned what you like and notice about the United States. What do you miss most about Pakistan?

Taimur Ahmad (01:01:12):

I think just sense of community. I think life in the US is quite individualistic. Everyone does everything on their own, especially California because it's not very dense. The urban density here isn't very high. Things are quite far apart versus in Pakistan, I think it's just having people around you, there's an energy. We're a very passionate group of people when it comes to sports and politics and all of those things.

Taimur Ahmad (01:01:42):

Pakistan also has I think an unquestionable amount of humor and satire in our country. I think I heard your podcast with someone from Lebanon say the same thing about making their crises into a source of humor and Pakistanis are experts at that. So, just appreciating that sense of humor through this is something I miss.

Nate Hagens (01:02:06):

Humor is one of our greatest attributes, isn't it, as humans? Of course humans would be the only ones that would think that was funny, but when things are dark, there is a sense of dark humor on some of my Listeners and such. We can be damn clever at times. So how old are you, Taimur?

Taimur Ahmad (01:02:25):

27.

Nate Hagens (01:02:30):

You're pretty wise and obviously intelligent for 27. At 27, I was watching Gilligan's Island reruns, playing Donkey Kong, and eating frozen pizzas in my basement, and I had no ecological awareness or systems awareness that you do now, although I did deeply care about nature and animals at 27, and at seven. So, we share that. So at 27, knowing about energy, about climate, about inequality, about the system, what kind of advice would you give to people watching this show from your perspective who are aware of the polycrisis?

Taimur Ahmad (01:03:18):

Yeah, I think I would say the three things we think about, time and how things move slowly, things take time and we just need to give the forces of nature time to work

things out. The second I would say is imagination. I think we have a severe crisis of imagination, of thinking of other ways of living and social organizations. So, being imaginative. I think the third is just having solidarity and finding community across different issues and groups, and finding strengths in each other is so important in a world that is increasingly individualized.

Nate Hagens (01:03:59):

What do you care most about in the world, Taimur?

Taimur Ahmad (01:04:05):

Well, apart from my family and friends, I think I care the most about enabling a system where everyone has an equal and fair chance. I think there will always be inequality and violence and unjustness, but I think the best we can do and we should hope for is to make sure that everyone has an equal chance at life.

Nate Hagens (01:04:29):

We've talked a lot about the crises, climate change, inequality, energy depletion, lack of electricity, all those things. What things are personally giving you hope and motivation that you've witnessed in your own life that things might be better than some of us fear in coming decades? Do you have any examples or stories?

Taimur Ahmad (01:04:59):

Yeah, I think there's a lot of upcoming movements by people who are saying, "Okay, we've had enough, and we want to change things." That is happening at a super small level. For example, just in this community that I've been a part of at Stanford, I was talking about the new sustainability school, I think from the week it was announced, there's a group of graduate students that have been protesting against the fact that this is a completely fossil fuel-funded, fossil fuel-prioritized school. So, those sorts of movements and coalitions are now reaching out to other schools across the US, forming connections, forming a community.

Taimur Ahmad (01:05:38):

That is just emblematic of stuff that is happening I would say everywhere. In so many parts of the Global South, there's Ecuador, Bolivia, Chile, there are all these movements now talking about taking control of their society, of their natural resources, and making them work for themselves. I think there's a lot of hope in the system, and it's just about making sure that they come together in a way to form power in numbers.

Nate Hagens (01:06:05):

When you first started learning about all this, about climate change and energy depletion and the relationship between rebuildable technology and potential energy as opposed to kinetic energy and all these things, explain your emotional psychological trajectory through that, because you sound really grounded and strong and roll your sleeves up, I'm going to dedicate my time and efforts and skills to this challenge. You don't sound defeated or scared or anxious to me at all.

Taimur Ahmad (01:06:46):

Yeah, I mean, I would say it depends on the day. I think all of those emotions ebb and flow. To continue the earlier Gramschi quote, the second part of that is, "Pessimism of the intellect, and optimism of the will." That is the goal that I remind myself a lot, that a lot of my thinking or analysis is quite cynical and pessimistic about how difficult things are to change and how entrenched things are. But optimism of the will and just making sure that the world is a complex system, which is both bad because risks can just exacerbate so much, but also in good ways because small things can have these butterfly effects and cascade into bigger things and you never know where something good will come out of.

Taimur Ahmad (01:07:32):

That's just how human history has evolved. That sense I think gives me a lot of hope, that combined with I think the earlier points I was talking about with religion, some of the other things about there's something bigger than all of us. There is some sense of truth that exists out there, and that we are all just doing the best we can in order to make it easier for us, for ourselves.

Nate Hagens (01:07:58):

Yesterday, I had a conversation with a Stanford professor who I'll be doing a podcast with. He's got an upcoming book on free will, Robert Sapolsky. You've probably heard of him. So, that ought to be interesting. You listen to a lot of my podcasts. Do you know what question I'm going to ask you now?

Taimur Ahmad (01:08:19):
Yes, yes.

Nate Hagens (01:08:21):
What is it?

Taimur Ahmad (01:08:22):
What will you do if you had no recourse and you could do one thing.

Nate Hagens (01:08:26):
Okay, yes.

Taimur Ahmad (01:08:29):
See, I passed the test.

Nate Hagens (01:08:32):
What would you do with a magic wand, Taimur?

Taimur Ahmad (01:08:36):

There's so many things I would do, but I think the more practical thing that I've recently thought about is I would enforce a system where everyone would have to work on a farm for a few weeks, like two, three weeks every year. I think the reason for that is food is the number one way in which our relationship with nature is mediated, so that the farm is that place where that happens. I think the fact that we are also divorced from understanding where food comes from, what it takes, how hard that is, how nature based that is, is important.

Taimur Ahmad (01:09:16):

So, I think doing that with your own hands, seeing where it comes from, gives us will or should give us a greater sense of appreciation for nature, for a simpler life, for things that are less hustle and bustle and less consumerist, and so on. So I would find a way to enforce that. I think every year, go back and work on a farm for two or three weeks, and eat what you produce.

Nate Hagens (01:09:41):

That's a great idea. Of course I do work two or three weeks on a farm, but I think if more people had that knowledge connection, where does the food come from, and also the emotional connection of the soil and the rain and the plant growth and the interconnection of it all, I totally agree. That's something that actually could happen. Who knows? What's next for you? You're graduating. What are you going to dedicate your newfound degree and wisdom and experience and passion towards systems, what is your plan?

Taimur Ahmad (01:10:22):

Yeah, I think one of the plans is to continue the newsletter. I think that is an important source for me just to organize and get my thoughts out there, but also just to continue this small, small doses of change in the system, and I hope something big comes out of it. So, surely going to focus on that. The second thing, which I started doing at Stanford, I want to do it outside as well, is to have more study circles, study groups with people who are from different disciplines.

Taimur Ahmad (01:10:51):

So, having engineers and business school students and policy students come and talk about, "Okay, what does US industrial policy mean for development in the Global South, and biodiversity and all of those things?" Introducing people to your work, de-growth, ecological economics, all of these things, that's something that we wanted do going forward as well.

Nate Hagens (01:11:16):

What would you like to be doing in 10 or 20 years, if you could just fantasize about that?

Taimur Ahmad (01:11:24):

Tough question. Changes every year, the answer to that question. I would actually say I'm very inspired by what you are doing. I think having a space where you are connected to the land and the work you do, you're countering the alienation that we face by being distant from nature and having the opportunity to do that, and have a much more simple, yet meaningful and connected life, connected both with humans and nature. I would love to find an opportunity and a space to do that.

Nate Hagens (01:12:00):

Salam, my friend, to be continued.

Taimur Ahmad (01:12:05):

Thank you very much.

Nate Hagens (01:12:05):

Let's have you back and follow your progress on changing people's minds and hearts. Thanks, Taimur, and congrats on graduating and let's stay in touch.

Taimur Ahmad (01:12:17):

Thank you so much. I really appreciate this.

Nate Hagens (01:12:20):

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