

SUSTAINABILITY IN EDUCATION



select conversations from the symposium on

ADVANCING SUSTAINABILITY RESEARCH & EDUCATION

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Wipro limited, Bangalore



भारतीय प्रबंध संस्थान बेंगलूर
INDIAN INSTITUTE OF MANAGEMENT
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Wipro Ltd. (NYSE:WIT) is a leading Information Technology, Consulting and Business Process Management company that delivers solutions to enable its clients do business better. Wipro delivers winning business outcomes through its deep industry experience and a 360 degree view of “Business through Technology” – helping clients create successful and adaptive businesses. A company recognized globally for its comprehensive portfolio of services, a practitioner’s approach to delivering innovation, and an organization wide commitment to sustainability, Wipro has a workforce of over 150,000 serving clients in 175+ cities across 6 continents.

Wipro started its formal sustainability journey more than a decade back with ‘Wipro Cares’, our community care trust that works with community on primary health care, inclusive education, environment and disaster rehabilitation, followed by ‘Wipro Applying Thought in Schools’ (WATIS), an initiative that addresses issues of systemic reforms in school education, and ‘Mission10X’, a not for profit initiative with the objective of increasing the employability of graduate engineers. Over the years, these programs have expanded in scope and scale and simultaneously, while other significant initiatives got added around ecology, workplace and employee engagement, customer stewardship, and suppliers.

Over the last decade, we have set up the momentum for a corporation wide sustainability program at Wipro that involves employees, customers, suppliers, investors, the government, communities and the education system. As part of this charter, we have defined some very aspirational goals on dimensions like GHG emission reduction, Water, Waste, Biodiversity, People Diversity and the Supply Chain.

At Wipro, we have endeavored to work on both the educational challenges in schools and colleges and on ecological sustainability issues, both, within our organization and outside. From our work in these areas came this realization that sustainability issues require greater attention in the education system. This was the genesis of earthian which is WIPRO’s Sustainability Education Program. It is a nation-wide program, the first edition of which was launched in April 2011 through which we have reached out to more than 3000 schools and colleges, 3500 educators and 15000 students since inception. The core focus of this engagement is of driving sustainability thinking and action through the learning process in participating schools and colleges by providing faculty and students, rich and diverse experiences.

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SYMPOSIUM OPENING REMARKS

● P D Jose

My role is only to say good morning, welcome you here, and apologize for the delay. And to tell you how unsustainable this world has become, so we feel a little more motivated to make the world better!

Before we start – because we might not formally have an opportunity to do so – I want to thank Wipro for being so gracious in hosting us. So thank you very much, Mr Narayan.

● P S Narayan

Thank you, Professor Jose. Let me begin by saying how delighted we are to have you on board on our campus, and to have this gathering of all of you at Wipro.

I was told that it might be useful if I could give an overview of what we do in Wipro on sustainability, including the Earthian programme.

I will take you through a short introduction to Wipro and its sustainability programme. Before I get on to what Wipro does in sustainability, I think it is useful for all of us, as corporates, to ask a set of questions as to why we need to do this. What is the larger context? And what if you didn't do it? What if you did things differently? And so on...

The Global Risk Report is released every year as part of the Davos World Economic Forum. If you see these Top 10 Risks, you will find a mix of economic, social and environmental risks. Risk No. 3 is water crises, No. 4 is severe income disparity, No. 5 is climate change mitigation, No. 6 is extreme weather events, No. 8 is food crises, No. 10 is profound political and social instability, and so on. The interesting thing for us here is that many of these risks have started making their appearance in the World Economic Forum Global Risk Report only in the last five years. Maybe if you went back ten years or so, an equivalent of such a report wouldn't have had these environmental or social risks so prominently.

I think that is a very definitive indication of what is happening. The fact that these kinds of risks are making an appearance in the Top 10 Risks of a forum like the World Economic Forum for the last five years says something. And

it says something to all of us – to stakeholders in business, in civil society, in government, in academia. What it says to business is, if these are the risks that the business leaders of the world are talking about, then you must recognize them for their significance and see what you need to do about it, how you can engage with it.

This notion that while in the last 50 years, in the great acceleration, as it is called, while economic growth has increased – has been increasing and will continue to increase significantly – something called the General Progress Indicator (GPI) has not only flattened down but seems to be also declining. And GPI, as you might know, has a whole lot of variables that are sort of indexed together. Some of them are positives and some of them are negatives. For example, you could put a cost or a negative value to water pollution or to unemployment, or to crime and things like that. If you index them together, then something that represents human wellbeing or welfare as a whole doesn't seem to be growing concomitantly with growth.

This growth in the last 200 years, fuelled by multiple waves of innovation, has two sides to it.

On one side, you have doubling of life expectancy, increase in literacy, increase in GDP per capita and all of that. On the other side, you have the Gini coefficient actually doubling in the last 100 years, which is a measure of inequality. One in five people still live in extreme poverty. 2014 was the warmest year (though every year is declared as the warmest year in the West) so we seem to be moving irreversibly towards a tipping point – water scarcity, one in eight people malnourished, and so on. If somebody wants to take a step back and ask, okay, how do the scales tilt between the positives and negatives, it is not easy to say. There are positives – several of them. But there are negatives. So how do you assess the situation?

The question that I think has faced thinkers, policy makers, people in academia and people in the corporate world, is: Does it have to be a fork in the road? Does it have to be either/or? Does it have to be either economic growth or sustainable growth? That is a central question that all of us are trying to grapple with.

And the challenges ahead do not seem to make the job easier.

Major challenges ahead

Climate Change: A warming world that doesn't seem to be slowing

Water stress: 41% rise in water demand projected between 2010 and 2030

Food security: 'In the next 40 years we need to produce as much food as we produced in the past 8000' (WWF)

An urban world: 60% of the world will live in cities by 2030 and around 75% by 2050

Poverty and inequality: Rising inequality in most parts of the world and its implications for social and economic stability

While statistics indicate that overall poverty seems to be coming down, along with that inequality is rising. What does that imply for social stability? The challenges ahead are only going to increase. So what does this mean for business? What does this mean for a company like ours? What are the questions that we need to ask ourselves?

Some big questions

What does business owe society and the planet, if anything at all? Isn't it enough to create jobs and pay taxes? Why should an organization think and worry about being responsible – does it have a strategic fit?

What hitherto ignored risks should a company be cognizant of? How should it act on these risks? Are there opportunities embedded therein that can be leveraged?

What should be the boundaries of a company's business responsibility? Where does business responsibility and social responsibility start? Which stakeholders should it serve?

One can start from a very conventional mindset and ask this contrarian question: What do businesses owe society, if anything at all? What does it owe the planet?

As companies reflect on it and think deeply on it, there will be other kinds of questions. What are the hitherto ignored risks that a company should be cognizant of? Let me give an example. About four years back, in the city of Chennai, which is on the coast, all the IT companies on the IT Corridor had to shut down operations for about two days. The reason for that is, the companies get their water from a private group of water tanker operators who went on strike. Why? They went on strike because in the area from where they were drawing water, the groundwater table was depleted and the villagers stopped them from drawing any more water. The government had

to intervene, and found them another place from where they could draw water. So the problem wasn't really solved in a systemic manner. It was just delayed, or deflected.

For two days, all IT companies were shut down. That is a kind of risk that I don't think any company would have even thought of, say, ten years or 15 years back. So what hitherto ignored risks should a company now be cognizant of? How should it act on these risks? Are there opportunities embedded within these risks that can be leveraged?

Getting down to specifics, a company can ask: What should be the boundaries of a company's business responsibility? Where does business responsibility end and social responsibility begin? That is not an easy question again – it is like a continuing spectrum. And what kind of stakeholders should it serve?

These and related questions are the kind that companies have started asking themselves. Many of the companies have adopted this classic triple-bottom-line model of economic, ecological and social capital or social wealth creation. The big challenge – or the big question – here is, are all these choices mutually exclusive or mutually reinforcing? In the sense, are there feed-offs involved? If there are, how serious are they? And how do you address them? If I address climate integrity, am I going to adversely impact shareholder value? Or, why should I look at a question like social cohesion in the communities that I work with? What has that got to do with shareholder value? Are these mutually exclusive, mutually reinforcing, or somewhere in between?

All said and done, whatever businesses choose to do or not, there are expectations from them. The social contract that a company has with society has moved from a formal system of regulations, tax policies and so on (which, of course, continue to be there) to something that is more semi-formal – like industry norms and codes of conduct on working conditions – to something that is more frontier – for example, a customer's expectation of a food and beverage company with regard to the obesity implications of the food they sell. So the expectations from business are also changing very definitively.

The transition within companies has started, at least among the larger companies. There is a debate on whether it is widespread enough, whether it is fast enough and whether it is in the right direction. But it has started. For example, there is a big movement now – the circular economy movement – which is trying to transition the way products are made and disposed from the linear to the circular. It is in its very early days, but it is there.

A couple of months back, according to a sustainability survey by McKenzie, the top three reasons why companies engage in sustainability are alignment with the company's business goals, reputation and cost-cutting. What is

interesting to me is that the alignment percentage is increasing significantly. It has doubled – which means more and more companies feel that there is a strategic fit between business and sustainability.

On the other hand, there is a declining trend in cost-cutting. What this means – the way I interpret it – is that the early low-hanging fruit of operational efficiencies have been done by most of the large companies. So they have gone beyond that. They are now looking at something that is more stringent.

So, given the larger context, let me take you briefly through what sustainability means at Wipro.

There are the eight pillars that our programme is built on. Ecological footprint, workplace sustainability, product and customer stewardship, and supplier responsibility are really the four very business-driven pillars. Then you have education, community engagement, and then there are two horizontal pillars: disclosures – which we see as catalysts for transformation and drivers of transparency – and advocacy.

If you blow up the eight pillars, there are 16 dimensions – energy, water, waste, biodiversity, all of that. The shaded ones are programmes external to our business – ecosystems or the other social programmes, whether reforms in school education or sustainability education, primary healthcare and all of that.

Together, collectively, we serve seven stakeholders. Four of them are direct business stakeholders – employees, customers, suppliers and investors. Three are larger social stakeholders – education ecosystems, proximate communities – and a very amorphously titled one called ‘future generations’.

The Governing Principles

- Rigour in goal setting
- Sustainability is everyone’s job
- Expanded time horizons and scenario planning
- The power of partnering
- Within and outside our boundary
- No cheque-book philanthropy
- Disclosures as catalysts for self-transformation
- Advocacy

These are the governing principles of the way that we run our programme. We think it is important to have goals that are rigorously set and rigorously followed and monitored, just the way you do in business – so, rigour in goalsetting. Sustainability cannot be the job of a small group. It is everyone's job. In sustainability, your time horizons have to expand. You can't look at quarters, or even years. The work that we do in school education outcomes and impacts over decades.

There is very little that a company can do on its own. So the power of partnering is paramount. A company can say it will implement a corporate-wide quality system, or a new IT system, because that is something it can pretty much do by itself. But with sustainability, there is very little it can do by itself. It has to partner.

The fifth principle is that you cannot lock in or isolate things within a boundary. Most things that you start doing with sustainability invariably spill out, outside a boundary. So you need to look at it in a systemic, holistic manner, and I will give an example of that a bit later, in relation to water.

We don't do what is called cheque-book philanthropy, in the sense that we take on only on two-three areas and focus very hard on them. We are not suggesting that this is the right or wrong approach –we're just stating our approach. Then, disclosures – we take them very seriously, and we try to engage in advocacy with different stakeholders.

This matrix shows how, in some way, we try to make sustainability everybody's job. In the four dimensions of planning, reviewing, execution, and internal and external advocacy, right from the Board of Directors to employee chapters to different groups like human resources and facilities, they all have some role to play. And that is the important thing.

The purpose of this chart is to go back to the first principle –rigour in goal setting. We set these goals for environment about five years back, in 2009-2010. For example, we have a goal of halving our carbon intensity by 2015 with reference to the 2010-11 base. We have goals on water, waste management and biodiversity. These goals are tracked very seriously. Every quarter, we have a review on them. The review is with our Chairman, Mr Premji. He spends about four hours every quarter reviewing all these goals. So we take them very seriously.

Here are some highlights of our ecological programmes. About 22 per cent of our energy is renewable. Last year, for example, all the initiatives we took resulted in the net production of about 90,000 tons of CO₂ equivalent. Of our water, 33 per cent is recycled. We reduce our freshwater demand year on year by about seven-eight per cent. With about 90 per cent of all our waste we know what is happening, in the sense that we have oversight that it is

getting re-used or recycled somewhere. The balance ten per cent, we are not sure whether it goes to landfills or not. In India, most likely it doesn't. But for about 90 per cent, we have clear oversight.

We also have a goal that five of our existing campuses and all new campuses will be based on biodiversity principles. Our first campus in this context is the Electronic City campus. We have some visual material outside that talks about it. As far as workplace sustainability is concerned, the two-three big things that most companies do are to do with diversity, health and wellbeing, and of course empowerment – ensuring that employees are empowered, they have a voice and so on. Women comprise 31 per cent of our workforce, and the number is increasing every year.

We were one of the early companies to start a programme on disability. We have close to 500 persons with disability in our workforce, for which work needs to be done at different angles – systems, facilities, as well as in the softer aspects and so on. We have about 101 nationalities represented, spread across 60-plus countries. We have a very comprehensive wellbeing and health programme that looks not only at the harder aspects of it – healthcare insurance or facilities – but also the softer aspects of it – preventive healthcare, fitness and so on, and also mental health, with counselling and everything related to that.

Among our more interesting projects, the Responsible Water Project is an example of what I said about how issues fluidly move across boundaries.

Some of our interesting projects... (i)

Responsible Water: Evolve a framework for assessing and managing groundwater risks in Sarjapur, Bangalore – through a combination of hydrological aquifer mapping, citizen-centric data monitoring and collective

This is a project we are doing here in Sarjapur, and in Chennai. The area here is entirely dependent on groundwater. We do not get water from the city utility but from private tanker operators. This area is also very dense – there are a lot of residential apartments, schools and so on. Clearly, we are staring at a water risk that is serious. However, when it comes to groundwater, the issue is that nobody understands it. Groundwater is a hidden resource, and what is hidden is not understood. The Indian government authorities do have a groundwater map but it is at a level of granularity that is not useful – at a higher level.

So we said, let's do something. Let's work together with citizens of this area, the residents and schools and try to do two-three things. We will try to

establish a scientific basis for management and governance of water. So we will try to draw out a very detailed, what is known as aquifer map which is, in simple terms, what the groundwater looks like below. For that you need the help of hydro-geologists and so on, and we are partnering with firms for that.

Number two, we will involve citizens and get them to collectively look at this problem. Which means many things – that they will monitor the data on water regularly, interact with each other, both face-to-face as well as through a virtual portal. And collectively, we will see how to govern this problem. For example, this kind of exercise will tell us, scientifically, where the points of discharge could be, where the points of recharge could be, who is drawing how much water, what are the allocation mechanisms, and so on. This is an experiment in progress, a three-year programme. We are in Year One. By the end of this year, which is March, we would have completed a very detailed version of this aquifer map. In parallel, we are deeply involved with the citizens of this area.

Why are we doing this? Because, even assuming that we wanted to look at water in isolation, from a very self-focused motive of Wipro it wouldn't be effective at all. Unless we learn to look at the larger picture we won't be able to manage our own water risk.

Some of our interesting projects... (ii)

Campus Biodiversity: Convert selected campuses to biodiversity-scapes: native species, non-linear, nature-aligned. The EC4 project is the first pilot with a butterfly park and an aquatic wetland (in progress). Pune and Chennai are next in order.

The biodiversity project is happening in Electronic City. The interesting thing about it is that the employees are also deeply engaged in it as employee champion. This is actually a result of an employee photography competition of the butterflies there.

Some of our interesting projects... (iii)

True Cost Accounting: We are one of the few companies in the world to complete a comprehensive valuation of our extended environmental footprint – energy, water, waste, air quality. The plan is to integrate this with our mainstream financial reporting.

Earthian:

An India-wide and global programme that engages with schools and colleges on sustainability education. Started in 2011, more than 2,500 schools and colleges have participated till date. The Continuing Engagement Programme includes workshops, internships and community outreach.

The third project is True Cost Accounting. We are one of the early companies in the world to complete a comprehensive valuation of our environmental footprint, and also of a social risk profiling of our supply chain. The plan is to integrate this with our mainstream financial reporting.

And, of course, finally Earthian, which is an India-wide programme that engages with schools and colleges on sustainability education..

A little bit about why we work so much in education – what is the reason? The context of Indian education, without going into the details, has at least two big factors – scale and diversity. The scale is huge – 1.3 million schools, seven million education functionaries and so on. Diversity lends itself to a lot of complexity. There are 441 living languages, which alone show the diversity we are up against.

Again, if you look at how the scales tilt, there will be many, many positives on school education. Access and enrolment, for example, is a really positive picture. But then there are many issues in the quality of education as well as in disparity, starting right from literacy, where there is a disparity between males and females. That is the reason why the issues of school education at a systemic level demand attention of a different kind – attention that is long-term, systemic, holistic and so on.

We work through a network of about 30 partners. Cumulatively, over the last 10-12 years plus, we reached out to over a million children and 10,500 educators across 2,000 schools.

The selection of priority areas of work in schools is based on good partnerships that we can forge.

Disclosures mean a lot to us. We publish a sustainability report, but we also do other disclosures. All our reports have been rated A+ till now. Normally, we don't talk too much about the recognitions we get but, for example, we have been five-time members of the Dow Jones Sustainability Index, and ranked No. 1 in the Climate Disclosure Leadership Index in India. We have also been among the World's Most Ethical Companies three times in a row.

Now on to sustainability in education. Our long experience with education

and then, more recently, with colleges, which started in 2007, made us realize that many of the problems of sustainable development are a result of our inadequate and inappropriate education system which starts at school – what is learnt, what is not learnt, what is paid attention to and what is ignored. That was the genesis for us to start Earthian – a long-term intervention that seeks to make sustainability axiomatic to education.

How is this programme structured? In the first phase, running for about four to five months, schools and colleges participate in a very intense learning exercise. Schools, for example, do an extensive footprinting of water in their school. They also measure water quality. In addition to this, they write an essay, which tests their writing skills as well as their ability to think at higher levels of abstraction. Colleges, from this year onwards, are expected to do a carbon and water footprinting of the campus, and then write an essay on something that is unfamiliar to them. This year four thematic areas were chosen – ‘The Tragedy of the Commons’, ‘Energy, Ethics and Civilization’, ‘The Circular Economy’, and ‘Deep Ecology’. The reason to make them write is to make them think at levels of abstraction that they are normally not used to.

After this first phase, we worked with a smaller group of schools and colleges, through the Continuous Engagement Program. Every year, we choose ten schools and ten colleges to work with on this, and try different modes of engagement of how to embed sustainability into education. Our schools programme has probably taken off and is on a more sure footing. As far as colleges are concerned, we are still talking, and this is one example of the dialogue process in trying to figure out all the things we do.

For colleges, a very interesting thing we have started is a summer internship programme where students intern with our sustainability partners. So somebody from an engineering college or from a B-school goes and works for two months with an organization working on groundwater, or on natural capital accounting, and so on. It is a completely different experience for them.

Many of our partners are internal. We use alumni of colleges and schools, parents and employees, and we have a lot of other partners in our Continuing Engagement Program. Bangalore Little Theatre is an interesting example of a partner that is trying to evolve theatre as a medium of pedagogy.

These are some of the winners of the past years, and there are many more:

What is sustainability education and what should it be about? We are not experts. I think you are best qualified to talk about that, and we are waiting to hear from you. But here are some thoughts in terms of what we think about it.

For example, there are many such strong systemic linkages between water,

energy, food and climate change. Climate change results in a shift in the hydrology cycle of water. That, in turn, has an impact on food. And food and energy have a trade-off in terms of how much land you want to use for food and how much for energy. The nexus between energy and water is anyway very intricate. Everything is interlinked. So how do you develop the systemic ability to see this larger picture and the inter-linkages?

The second is to learn to subtract, and not just add. And to learn that capital value and wealth are not just economic, but also ecological and social. So while you can enhance or add to ecological capital, say through afforestation, you can deplete it through pollution. Or you can add social capital in a variety of ways, but you can deplete it through products that are harmful to health or the use of child labour.

One of our favourite quotes in Wipro on this is from David Orr. David Orr is one of the leading thinkers in sustainability in education. Let me read out this entire paragraph of his: *'A myth of higher education is that we can adequately restore what we have dismantled. In the modern curriculum, we have fragmented the world into bits and pieces called disciplines and sub-disciplines. As a result, after twelve or sixteen, or twenty years of education, most students graduate without any broad integrated sense of the unity of things. The consequences for that personhood and for the planet are large. For example, we routinely produce economists who lack the most rudimentary knowledge of ecology. We add the price of the sale of a bushel of grain to GDP, but forget to subtract the three bushels of top-soil lost in its production. As a result of incomplete education, we fool ourselves into thinking that we are much richer than we are.'*

So this is what he means: you don't know how to subtract, you know only how to add, right? The other thing would be: rethinking economics has its place.

We think that understanding sustainability has at least three dimensions – the cognitive, the aesthetic and the ethical. It requires the blending together of the intellect, a sensibility and a sensitivity.

The pedagogical challenges

Many sustainability issues are 'wicked' problems

Where the boundaries between the known and the unknown keep shifting

The more that is known, the more 'unknowns' emerge

Sustainability issues are invariably inter-disciplinary

Sustainable cities require engaging with urban metabolism, circular product models, environmental sciences, sociology,

human behaviour, the role of public spaces, hybrid governance models, new economic models

Climate change requires engaging with the disciplines of earth sciences, systems theory, ecological economics, energy science and technology, livelihoods, international governance, etc.

All these go to show how inappropriate a 'Cartesian deterministic' approach can be

The pedagogical challenges, as we understand them, are:

Many sustainability issues (that are known, including social sciences) are wicked problems where the boundaries between the known and the unknown keep shifting, and the more that is known, the more unknowns emerge. And sustainability issues are invariable inter-disciplinary. For example, if you look at the latest buzzword of cities – 'sustainable cities' – it requires engaging with the disciplines of urban metabolism, circular product models, environmental sciences, sociology, human behaviour, the role of public spaces, hybrid governance models where citizens play a role, new economic models and so on. Climate change requires engaging with the disciplines of earth sciences, systems theory, ecological economics, energy science, livelihoods, international governance and so on.

So, given this inter-disciplinary nature, it shows how inappropriate a Cartesian deterministic approach can be, when you look at it as a slice and try to reduce it to a particular issue. You cannot do that, and therefore, to our mind, this will require a change in mindset. It needs to bring the yin and the yang together.

The Cartesian model, which is the rational reductionist linear model, has actually served us very well. The scientific revolution has been built on that. So it has really led to a lot of benefits. But then, the challenges that face us today and tomorrow cannot probably be addressed only through the Cartesian model. You have to bring in something more integrated, something more non-linear and holistic.

If we were to summarize what sustainability education is, it is about new ways of seeing. Proust said that the real voyage of discovery consists not in seeking new landscapes, but in having new eyes. So, sustainability education is really about giving a set of new eyes to everybody. Why it is critical is something that I think is not lost on any of us in this room. The world finds itself at an inflection point where, depending on what we do, it will determine whether status quo, decline or flourishing is going to happen.

These are some of our high-level thoughts on sustainability education.

PANEL 1

INCORPORATING SUSTAINABILITY INTO B-SCHOOL CURRICULA: OPPORTUNITIES AND CHALLENGES

OPENING REMARKS

● **P D Jose** *Moderator*

The first session is really about how to incorporate sustainability into B-school curricula. My own understanding – having worked with this for a long time – is that while being sustainable is profitable to business, whether it is worthwhile for B-schools to engage in sustainability initiatives is still open to question. If you extend that a little bit to faculty members, it is even more so. There are some real questions. In terms of this being an interdisciplinary science, how relevant is the research, how valued will it be? This being something that is not immediately relevant for jobs, how valuable is it to students? And so on... So there are multiple questions built around this.

Before we start, I want to quickly introduce our panelists for the day.

Prof. Suresh Jain is a professor in the Department of Natural Resources at TERI, Delhi, and has been working for a long time in the area of natural resources. He is a programme coordinator for MSc Environmental Studies and Resource Management, and was guest faculty at DTU Delhi, and Western International University, Arizona, USA. He has worked abroad, with significant years of experience as an academic, and earlier, in industry – he was Technical Manager in Environmental Services in SGS India Private Limited.

Dr Giridhar Kinhal is Director of the Indian Institute of Forest Management (IIFM), Bhopal. He is a 1980 batch Madhya Pradesh cadre Indian Forest Service officer, with years of experience in the area of sustainable development and forestry. He is a very interesting person to have on this panel because he now heads an academic institution, but has also served long years as an administrator and a regulator, and has significant international experience in multiple international organizations, including UNDP, DFID, IUCN and BMZ.

Dr Peppin is currently Professor of Rural Management and Organization Change and Development at Xavier Institute of Management, Bhubaneswar (XIMB). He was earlier at the Loyola College, then with IGNOU, and has worked at the Voluntary Health Association of India. He has served as the Dean of the School of Rural Development at TISS, and is now setting up the School of Sustainability at XIMB, which will launch an MBA in Sustainability Management in the academic year starting in June 2015. I would think this is one of the first programmes that actually focuses on sustainability management. I know TERI does that, but I think the focus here is probably more in line with the pure business kind of connect. So it will be very interesting for us to hear what his plans are.

And finally, we have the core Chair of this symposium, **Prof. Carol Hee**, who is Director of the Centre for Sustainable Enterprise and Professor of Strategy and Entrepreneurship at the UNC Kenan-Flagler Business School, USA. She teaches a course called Sustainable Enterprise and Environmental Strategy in their MBA programme, and is quite a popular teacher. I had the privilege to sit in one of her classes, and everybody laughed at her jokes – that is, for me, the measure of popularity! She had quite an international class and the discussion was really, really nice. She has received an honourable mention in the Dr Alfred N and Lynn Manos Page Prize for Sustainability in Business Curricula in 2010. And, most importantly, she heads the sustainability initiatives of UNC, not just in terms of academic but also physical infrastructure. So it will be very interesting for us to hear from her about their initiatives and so on.

By now you would have realized that these panelists come from very diverse backgrounds. We have someone from a pure business school; someone who is from a natural resources school but strongly connected to business – TERI, of course is about energy and all of that; and XIMB is also from a pure business perspective. The choice is deliberate because, as Mr Narayan so kindly reminded us in the beginning, it is an interdisciplinary science. It requires collaboration, and often these discussions are limited to very closed circles. We thought it would be good to have an open kind of discussion on this.

Let me just take one more minute to set the stage. The panelists have been asked to talk about their own experiences in their own schools, and how sustainability may be integrated. But I want to highlight one or two points to keep in mind. All of these schools are pioneers. In fact, sustainability education suffers from what could be called a healthy – actually, maybe an unhealthy – amount of scepticism all around. Students are cynical, by and large, because they don't find a job opportunity. At least, that is what I find in the top B-schools. Faculty are sometimes a little bit cynical, partly because career opportunities are not so very well defined, certainly not in the

Indian schools. And then of course, the holy grail of every business school is shareholder value maximization, and there is potentially some conflict out here.

Institutions are also a little bit cynical because, at the end of the day, they are trying to attract students. It takes a brave school like XIMB to launch a programme like this, unless you are focused like IIFM or TERI. Then, of course, the focus is built around sustainability.

Therefore, when you talk about sustainability, while you can define it in business language, it becomes a little bit more difficult to incorporate that in the academic context. And of course, as I said, students feel this is all preachy and good but not practical and useful. I often hear this feedback – it is nice to be good, but it doesn't pay to be good. That is something that one needs to consider.

The consequence then, I think – I want to stop with this, and I want them to put a more positive spin to this, that is why I am going slightly on the other side – has been – and I would like you to refute that if you would like to – that B-schools have mainstreamed sustainability more out of political concerns and correctness rather than conviction. You all represent schools that have done it out of conviction, so we would like to hear why you chose to do that.

Secondly, the consequence from a faculty perspective has been that those who practise do not preach, because there is not so much connection between industry and the academics, and those who preach have by and large not practised sustainability, with a few honourable exceptions. So how do you get that connect where we bring real life into the classroom and make it more meaningful for everybody concerned?

These are just a few opening thoughts. You are free to speak your mind.

Carol Hee

Thank you for the opportunity to be here. I certainly feel like I have learnt a tremendous amount. So I'm sitting here with a lot of humility, because although Flagler is highly ranked for its sustainability, I feel like there is so much more that we can do – especially learning from the example of those of you who are here at this conference.

We will start with the last question. Why did Kenan-Flagler at the University of North Carolina, Chapel Hill, go down this path of focusing on sustainability as one of the major areas that we wanted to build the strength in? I would say there are three factors that were associated with that. First, there was a champion. There was an individual faculty member, Stu Hart (Dr Stuart L Hart), back in the late 1990s, who had the vision and the power to

convene people around him and turn excitement or enthusiasm into action. So I think, in the early days, having a champion was very critical.

Second, the core values of our business school, I think, lend themselves to our school becoming really focused on sustainability issues. So from the first moment of contact that, say, a potential student – or employer – has with Kenan-Flagler, it is obvious to them. Or our goal is that it is obvious to them that we have certain values, and those values are:

- Excellence: We are committed to doing whatever we do, very well
- Leadership
- Integrity: Being highly committed to ethics and good corporate governance and thinking about doing well beyond doing good
- Community: Thinking about how we interact with our corporate partners and how we prepare our students to serve interests beyond their own career success.
- Teamwork is another important value, because we can't really move the needle as much as we need to in sustainability without collaboration.

These, I would say, are Kenan-Flagler's other strengths. We have strong commitments and strong programmes, and strong faculty members who have expertise in innovation and critical skills for addressing sustainability challenges. And we also have a big focus on being global. So we are not only interested North Carolina or the United States, but our school, from decades ago, recognized the importance of being global.

And then finally, under the leadership of our last dean, we have a big focus on developing strong leaders and leadership skills. So having leaders who think globally and have cultivated within them a spirit of entrepreneurship and skills for innovation, I think also positions Kenan-Flagler to be strong in sustainability.

As far as opportunities and challenges are concerned, I have a couple of points that I wanted to share. An exciting thing about sustainability is that the challenges that the world faces are so large, but there are just as many opportunities in the education space. And the first one that comes to mind really ties into the introductory comments from the Wipro executives. It is how interdisciplinary sustainability is. So that means there is an opportunity for cross-campus and cross-disciplinary studies, which can really enrich students' educational experience when they are challenged to apply what they learn in one class – say, accounting or finance. And then, if they understand sustainability challenges, you can press students to apply these learnings. What does it mean to do cost accounting that also looks at the externalities? How do you price an intangible like goodwill? That might be important in a marketing class. How do you price an intangible like access

to clean air or clean water? So the more we give our students that challenge of applying those skills from basic business classes, I think the more they learn – not only those concepts but how they can be more responsible citizens.

Looking beyond business school, the opportunity to collaborate across campus, I think, is a great opportunity. So I make a special effort to advertise my classes to students who might be in the Law School, or the School of Public Policy, or Public Health, or City and Regional Planning, and especially environmental science students in the undergraduate case. Having those different perspectives in the classroom is beneficial both ways – and, I would say, that is also maybe a number one challenge. From things as simple as the calendar – our business school has a different calendar from other units on campus, different registration system, so all these administrative, bureaucratic things kind of get in the way of that. But because of the scale of sustainability challenges, we need to overcome that red tape and those administrative hurdles.

The other opportunity that is particularly important to UNC is that it is a chance to give back, and to engage with communities and with businesses. So we are talking about the importance of partnership.

The University of North Carolina is the country's oldest public university. And so, again just as a function of who we are, we have a responsibility to serve the citizens of North Carolina. Our students know when they come to our school that they will have the opportunity to employ the skills they learn – say in a marketing class – to help economic development in rural North Carolina. It is also a chance to engage with companies. For example, Bank of America approached us last year about their commitment to deal responsibly with electronic waste, and we had students to do research to help Bank of America address their question. Being a part of partnerships is a great opportunity.

As being part of a university that is constantly trying to improve itself and provide an example of a community's sustainability, the academic setting can itself be a laboratory for learning. We have had projects where our students looked at how to reduce the environmental footprint of the food services on campus. This coming semester, I am going to have students do a greenhouse gas inventory and specifically look at Scope-3 emissions for the business school. As an organization, while we are not as large as a multinational company like Wipro, we do have environmental impacts, and having the opportunity to apply what we learn in the classroom to study our institution is a valuable opportunity.

The last thing I will add is that as far as opportunity goes, opportunities for students to engage in extra-curricular activities, I think, are very rich in

the sustainability space. And I would say that, again, that it is tied to the challenges of how large the challenges are. So, for example, in my classes I mention food and tie that to the increasing population and water and energy constraints. But we only spend maybe ten minutes of one class in one course, talking about food. This year, however, we had students who were very passionate about that topic. And so our Center for Sustainable Enterprise empowered those students to host a conference focused on sustainable food systems. Students then had the experience of contacting people in industry, gaining experience. For example, they really wanted to have sustainable seafood at lunch. So they had to deal with these kinds of supply chain challenges, like how do we get salmon that was raised responsibly? They found a person. And then they had to set up transportation and get a restaurant that was willing to have fish supplied from a different vendor than normal – all of these challenges. And so those students – because we gave them the opportunity to pursue their passion – would have learnt so much more than what they would have in a classroom.

As far as challenges are concerned, one of the large ones is a function of how business schools operate in terms of who is at the business school. Professors who have gone through the education system and got a PhD on a very narrow topic and then are rewarded for publishing on that topic – there is not really an incentive for them to have the broader view. Especially for young faculty who are trying to pursue tenure, I think this is a challenge. Their time is just so valuable, and there is so much on the line for them as far as their career success goes, do they have the freedom to think about the whole system and do more than just their topic?

We have a quarter system, so one class would be seven weeks, or 14 sessions, and the faculty member has to take all of finance, or all of managerial accounting, and squeeze it into those sessions. That faculty member is an expert in one tiny piece of that really broad topic, and there is not really an incentive built in for them to talk about broader sustainability challenges. It is daunting. You really want to do a great job teaching your students, and our student evaluations are really important for our promotion and for even whether you have a job or not. So if you are going to take a risk to teach something you don't know much about, then it's very complicated. So I think that just administratively, it is difficult for professors to teach about sustainability.

The last challenge, I would say, is that our students push to get a job. Everything they want to learn in a classroom, they have to, in their mind, see how it positions them to get the job they want. When you are trying to educate students about, say, the interconnection between water and energy and climate, it's so broad and vague, and so long-term, and maybe will be important to them in some way they can't see right now... that makes it

difficult when you are thinking in the back of your head that these students are going to give me an evaluation and they are going to complain if they can't see the connections. So I think it calls on faculty to be extra resourceful, extra courageous, and calls on the leaders of business schools to be extra visionary and kind of set their priority from the top.

● P D Jose

Thanks, Carol. I am really glad to know that we are all extra courageous and visionary in this group! That is really true, and I think we would like to pick up later many of the issues that you pointed out which are really important. May I now request Dr Peppin...

● S Peppin

I would like to thank Prof. Jose for introducing XIMB and XUB.

This is a very interesting conversation we are having right now – how do we mainstream sustainability into B-schools? I would like to focus on the word 'business'. I remember when the IIMs were set up there was a great deal of debate on whether we should follow the model of Harvard Business School or Princeton or whatever. But our founding fathers stood their ground and said, look, we would like to call them institutes of management, not business. That was the kind of paradigm shift with which management education in India was initiated. But unfortunately, from management, we have been gradually going towards business, reducing management education to business. That is the difference that we in XIMB see vis-à-vis other business schools.

In 1986, when there was an attempt to clone XLRI – our parent organization – the Jesuits asked, why clone another management education institute? Because in XLRI, you are not serving the people you are supposed to serve. You are serving a different elitist group in the name of business education. So the idea was, okay, XIMB is going to be an institution with a human face, with a difference. That was the genesis of XIMB in Odisha.

Therefore, from Day One, there was a strong commitment to look at what management science could do to address poverty, ill health, issues related education. The Centre for Development Research and Training was set up, and that led to the birth of a one-year diploma programme in Rural Management, which gradually became a two-year diploma in Rural Management. So the whole concept of connecting business and society, that culture was there.

With this context, now I will talk about what we have been doing in the name of sustainability. Though we have set up a School of Sustainability

very recently, we walked a long distance before we called it that. Here are a few of the activities that we have been doing.

One, we have been introducing courses like ecosystem management, natural resources management, CSR and sustainability in most of our programmes – be it the Business Management programme or Rural Management programme.

Secondly, because of our development focus, we have been very strongly engaging ourselves with communities in Odisha, with issues like social forestry or microfinance – empowering women through microfinance. So the connection between the community and the business school is very strong, and it was easy for us to strengthen that initiative and set up the School of Sustainability.

Yet another initiative was that, with the help of UNICEF, we wanted to map the progress of achieving the Millennium Development Goals (MDG) in Odisha. We did it in two phases. In the first phase, we prepared a status note on each MDG. Then UNICEF said, okay, what is the best way to accelerate this process? So we undertook a kind of a micro-study on each of them. For example, if we want to make a greater impact on, let us say, gender equity, what is the core issue that we need to focus on? Then we looked at the declining child sex ratio. If we want to look at reducing child mortality, what is the area where we need to intervene? Then we looked at neo-natal mortality.

So through these processes, we created a forum called Orissa Millennium Development Forum, which is a kind of multi-stakeholder forum consisting of academic communities, political parties, media, UN agencies, civil societies and international development organizations. The idea was very simple – to conduct a micro-study, invite the secretary to the government heading a particular department, and make a short presentation, just a three-hour discussion, then present the report. We have a strategy called I-Strategy – rather than criticizing the government, what can I do? If I am an academic institution, what can I do? If I am an NGO, what can I do?

This went very well. Now, of course, the UN is talking about sustainable development goals. Therefore, we are in the process of continuing our early initiative through the School of Sustainability.

Now about the courses that we are going to offer. As Prof. Jose said, we have really taken a bold decision. There is a lot of cynicism, scepticism, as Carol was saying, in how we as faculty behave in a business school when it comes to sustainability. But fortunately, we have had a culture of connecting business and society, so we do not see that kind of resistance in our faculty. Rather, there is a lot of synergy, cooperation and collaboration emerging –that is the kind of a culture we have.

We have looked at five focus areas for our MBA in sustainability:

1. Human Development
2. Sustainability, Leadership and Entrepreneurship
3. Climate Change and Natural Resource Management
4. Sustainable Energy
5. Policies, Laws and Governance

This is in addition to the few general management courses that we normally teach in our management institution. Then, in the second year, students will go in for specialization in four of our functional areas, that is, accounting and finance, marketing, human resource management, operations management and information systems. But a student who wants to specialize in, say, accounting and finance, has to earn 18 credits offered in that particular area and another 18 credits in the sustainability focus area. That is the model that we are looking at.

There are other courses. We have other special features. We have Capstone Projects – that Carol spoke about – and we also have a nearly one-and-a-half month programme on Sustainability Discovery, wherein we encourage our students to go into the world and discover for themselves what all is being done in the name of sustainability.

We are also looking at our own neighbourhood. We have become a university now. We are in the thick of a rural environment. So can we look at creating sustainability communities, or sustainable development?

I would like to conclude with two thoughts.

Number one: If you look at the triple-bottom-line – what the UN has been talking about: profit, planet and people – and compare that with business education, we are largely addressing the first P, that is profit. Therefore, what kind of choices are we going to make when we go into mainstream sustainability education? Can we give equal importance, or should we shift our focus from profit to planet? That is one issue that I would expect the august body here to discuss and deliberate.

Number two: We also need to look at the context in which all the programmes have to be positioned. The context, for me, is the growing inequality, the conflict that we are witnessing all over the world, and finally, climate change. And therefore, what should be the content of the programmes we are going to introduce? It cannot be again the same thing put in a different bottle. We need to really make a very conscious effort to look at the content. Then of course, the culture of teaching itself has to change. Teaching and learning have to change, because this is going to be a major shift from teaching business education to teaching sustainability related courses.

I am sure most of you are aware of Capra's famous book, *The Web of Life*, where he talks about how life is governed by two factors – the way we think, and the value system that we profess and practise. But he says we have to make a choice – we can either be self-directive or integrative. If you look at his model wherein values can be self-directive, he says if it is all about expansion, if it is all about competition, if it is all about quantity, if it is all about domination, then we will be very, very self-directive. When I looked at all the curricula being offered in business schools across the globe, we are all self-directive. We are not integrative at all.

Therefore, if we have to graduate from being self-directive to integrative, he suggests: Can we look at conservation? Can we look at cooperation? Can we look at quality? Can we look at partnership? I think these are some of the challenges. I would suggest from an ideological perspective that we need to look at all these.

I would like to end with two quotes. One is from Homi Bhabha: *"Sustainability is often spoken of as an ecological issue. But it is no less an issue of our moral economy. Sustainability is as much a matter of the balance of social forces as it is a moral measure that regulates equitable outcomes in an uneven and unequal world."* And finally, an interesting one from C S Lewis: *"The task of the modern educator is not to cut down jungles, but to irrigate the sets."* Thank you.

● P D Jose

Thank you, Dr Peppin. I think your insights on how one might structure a sustainability course are really interesting, and we will come back to that. One point that I really found interesting in your presentation was that, traditionally, the idea of building sustainability into a business school curriculum has been to add electives onto a core curriculum. You have actually built sustainability as the core and added on the functional areas. You have inverted the pyramid. This is really fascinating. It goes to prove Carol's point that you have indeed been very brave. And I hope this really works.

We will now hear Dr Kinhal. He has had a head start on all of us, really. Even before we talked about sustainability, the Indian Institute of Forest Management focused on that. It will be interesting for us to hear also the perspective from a sectoral school as to what you think we can learn from you and what, possibly, we can share with you.

● Giridhar A Kinhal

Jose has built up too much expectation, but let me try to do as much justice as possible. This takes me back about seven-eight months, when I had a

discussion with Dr Narayan. We happen to be members of a community that has been created at the national level – Indian Business Biodiversity Initiative – and I mentioned what we do at IIFM. He got interested and here we are all to talk about that.

I call my whole deliberation here ‘Go back to roots’ – in the Indian context, if not in the global perspective. Traditionally, when we rise out of bed every day we are supposed to say, ‘Karaagrevasate Lakshmi, karamadhye Saraswati, karamooleshu Govinda, prabhaate karadarshanam (Lakshmi, the goddess of wealth, dwells at your fingertips; Saraswati, the goddess of learning, in your palms; at the base of your hand dwells Govinda; look at your hands in the morning, and you shall find them)’. The triple-bottom-lines we are talking about are all there in this one shloka.

Lakshmi is money, Saraswati is education, and Govinda implies sustainability of the whole world. We rise with these commitments. And, at the end of it, we say, ‘Sarvejanaaha sukhino bhavantu, sarvasan mangalaani bhavantu (May everyone be happy, may everyone be blessed)’. What does that mean? We ensure wellbeing to everyone and that all of them are happily placed on this earth. And what is that? It is sustainability.

In that context, we must go back to our roots and see how to build on that. Over the centuries, we have distanced ourselves from the education we have all been given outside the classroom. I would like to say, build that into your lifestyles. Sustainability is nothing but a lifestyle issue. The topic is very relevant and urgently needs to be discussed, but not just among those with white-collar-jobs. Teachers are the pillars of society, so that is why we are talking about how to incorporate these elements into the education system or management education.

Rather than talking more about sustainability, I would like to speak about action – where knowledge lies. Re-wording ‘Business has always been looking at value’, I would say, ‘Let it look at values’. That is a simple thing which came from the talk Narayan gave us.

These sayings and thoughts all have meaning when you read them and understand them. But then they are forgotten. We need to put them back into action. That is what all of us are looking at through the students, through children. We should bring these ideas back into action, in the country and at the global level as well.

Currently, we are talking about sustainability as a result, or as an expectation. It is not going to work that way. Sustainability must become a thought in everything we do. Then only will things happen. Otherwise we will be talking about it and writing papers or books. But, as I said, we must put it into action.

Why was the Indian Institute of Forest Management established in 1982 by the Ministry of Environment and Forests? There are two streams. The managers of forests are recruited through the UPSC, through the Indian Forest Service and State Forest Service. They do not have real management perspectives in terms of what the value is, what the expectations are from those resources, how they affect us... All this is not integrated into the education when the officers and managers are recruited.

With that intention, to put a management perspective into forestry and natural resource management, this institute was established. Since then, although we started with only management development programmes, we now have four full-fledged courses. We have a PG Diploma in forestry management – that is the most integrated curriculum. We see to it that every subject is taught from the perspective of natural resources – how they can be sustainably managed and not depleted. Every day, whatever the class or session, we try to relate it to sustainability and how sustainable development is possible.

The institute has four pillars – Education, MDP (Management Development Programme), Consultancy and Research. The consultancy and research is to help organizations in the corporate sector, learn from them, and incorporate and assimilate that into the education. Similarly, research outputs are also assimilated into education through case studies or results of what we have done, and how resource accepts those kinds of interventions. All this we take back to the students. That is where we make them aware of current situations, and we update the course curriculum on a regular basis. This is very necessary for most institutions to follow. I am happy to know that XIMB has a sustainability related course as the frame, within which you fit in management courses. It is a very audacious but necessary change.

About our structure, we have nine faculty areas of which three, with more faculty in terms of individuals, are related to environment and natural resource management. The other six, with fewer people, bring in the management related elements like financial management, sociology and human resource management.

Most MDPs are application oriented, and linked to rural livelihood and climate change adaptation of late. We help generate contemporary knowledge. Case studies are built across various states in the country, and we take them back to the students to make it a more contemporary learning for them.

During my tenure as Forest Officer in Madhya Pradesh, I have seen that tribal societies are the most sustainably managed. Take it from me – every action of theirs leads towards sustainability. When I was 24-25 years old, I went to one of the bamboo-rich areas in the Harda district of Madhya

Pradesh as Divisional Forest Officer. I used to move with the local people. Once, as we were entering a bamboo forest, I saw that they had created an icon, some kind of stick in the form of a man, with a face and all that. They told me that was their signal to the villages around – once it is put, that jungle was not to be harvested that year.

So they have a cycle of where to harvest, how much to harvest – everything is known to them. What we bring as bookish knowledge or some kind of science of forestry – I am not saying it is irrelevant – has to be built on what they are doing, rather than imposing it on them. Till such time that they are practising their own ways in their villages, they are all sustainable. I have seen their bamboo harvesting. They may not have the language of science that we have. They have their own way of communicating with their people – through science, through some kind of diktats within their society. We need to learn from them and put it back. These are the kind of case studies we build on and communicate to the students at our institute.

Every year, we organize a three-day workshop on sustainability and climate change related issues, which is totally driven by the students. It happens in the second year of their course, and is brilliant. They come up with whatever they have learnt, and try to bring the best people, and interact with them about sustainable development and growth that can happen together.

This year, after deliberations, the first thing they said was that they had to challenge the orthodoxy, and also identify discontinuities. Knowledge is discontinuous in some aspects of natural resource management. We have to bring them back from wherever they are available, and build a continuous knowledge about resource management. Third was to match available resource. To do any corporate or business activity you have to match the natural resources available, rather than saying we plan for it and then decimate or deplete the natural resource. Finally, they said, there should be insightful understanding of unarticulated needs. There are some needs which are not embedded into what we plan as corporate and business activity. We need to articulate the requirements of the people around. When we say ‘social aspects’, we have to cover everyone, rather than just looking at money or the profits as the orientation.

It was a successful workshop and they all learnt a lot. We may have spotted the need or the idea, but just spotting is not enough. We have to convert this into opportunity and tap this opportunity for overhauling the education process as far as business management parlance is concerned. I hope this workshop is a first step – maybe Wipro is already doing it – to inculcate sustainability into what we do, both in corporate as well as the social aspects of resource management.

Yesterday’s Times of India carries a caption saying ‘Government wants to

make growth sustainable'. The Government of India is already looking at it and they have 55 principles laid down. They are going to consider these and this body here should guide the process. It is so opportune for all of us. Let us jump at it – they are going to adopt 55 principles and create an umbrella legislation. They will not understand as much as they need to. It is going to be from the Ministry of Environment and Forests and I am already in interaction with them. I said, don't do anything in haste. Take us also into the ambit of what is developed.

Thanks a lot.

● P D Jose

Thank you, Dr Kinhal. You encouraged us, and also alarmed us, with all these new initiatives that are coming up. But I think the point that we need to be very actively influencing the debate is really very valid and well taken.

The other thing point was that there is a great deal of expertise in sectoral schools with respect to managing some key sustainability challenges. Then why B-schools should go elsewhere to recreate this knowledge in a less efficient manner is really a good question to ask. So one of the issues to discuss later is, how do we allow these linkages to come up and develop communities of partnerships in the area of sustainability?

Our next speaker is, incidentally, a co-winner of a Nobel Prize. The director of TERI – the institution where he works – won a Nobel Prize, and all of us like to claim a little bit of the credit! TERI has been engaged in the area of sustainability for the longest time I can remember, even before sustainability as a word became acceptable. Also, TERI has been at the forefront of research consulting and now, more recently, in the area of teaching in the area of sustainability. So we are very keen on hearing your perspective.

● Suresh Jain

Thank you, Prof. Jose, for giving me an opportunity to speak as a part of this symposium.

This last day I have been just listening. As professional engineers – my training is in environmental engineering – we want to gather how business people or managers think of sustainability. I was also talking to Carol, and we were saying that with sustainability, we always talk about three pillars. But when we are talking about education, in my understanding, we are supposed to talk about four pillars – three pillars you already know, and the other one is education.

My other colleagues say that teachers are responsible people. But at the same time, the students who are learning from your institutions are the brand

ambassadors for your future. If you are really giving the true knowledge, where we are talking about values (and) ethics, what exactly do you want to imbibe in that? That is where we believe. And that is one of the reasons TERI believes (that it is about) how you make a difference. And that is not only at the society level. We really want to go to the grass-root level.

I have been associated with TERI University for the last seven-and-a-half years, and I have seen that environmental engineering students normally go for consultancy and so on. But there is a change now. Our students are not very happy to go into consultancy work because there is only one type of job there. You work on some project, and when it ends you start working on something else. Students nowadays want to work with NGOs. They want to contribute at the grass-roots level –and that is something very important that we have learnt from our students.

In TERI University we don't have any boundaries – so-called departments of so and so and so. Obviously, for formality, for the requirements of UGC, you have them on paper. But we sit together. But if you go to any of the floors, there is no mention of any particular department. We discuss very closely with each other. Like Prof. Jose said, I belong to the Department of Natural Resources, but I am also equally part of our other programmes. That is a hallmark of TERI University. Most of our faculty is from the so-called premium institutions, the Indian Institutes of Technology at Kanpur or Delhi, but this is one thing we have learnt from TERI – that there are no boundaries, you learn from peers. And like Carol was mentioning, there are lots of opportunities because if you understand each other, there are opportunities in terms of collaboration and research – you can write jointly, teach jointly.

There are many courses which are not evaluated by just a single faculty member. For example, we have a course on urban management. Now, it is not architects or planners who will tell you how you to manage. They have to bring in the environmental perspective and students must integrate those components into their learning.

We have an orientation programme for about five days' at the beginning of the year, for students as well as faculty members – not just for management students or science students, but for all. In it we talk about food security, energy, environment, management, industries and so on. This starts from the first day of a student's entry, and is something unique.

From the beginning, we start connecting the courses to each other. This is not limited to subject knowledge. For example, if we're talking about air quality, students may ask how air pollution is connected to sustainability. Sometimes it is very difficult but you have to answer. When you talk about energy, you know the problem. Energy is the main component. Depending

on the amount of energy you use, there are emissions. When there are emissions, there are direct or indirect impacts. And then we talk about the impact on climate, about human beings, and so on.

Here is a very simple example. We are working on cook-stove technology. Those dealing with energy are thinking about how to enhance the efficiency of the stove. But I look at the perspective that for you energy may be very important, but have you seen the other aspects of increasing efficiency – the emissions? Why don't you take things holistically – energy and emissions together? Because when there is a reduction in emissions, there are health benefits. When women cook meals, especially in rural society, the impact on their health will be reduced drastically. That is one connection. When you are talking about one subject, you have to try to integrate all the aspects of that problem.

That is one way we are learning. We are not saying we are the teachers and there is no need for us to learn. We are learning from our students – when they go into the field, there are a number of aspects and we learn together.

In the context of sustainability, at TERI University we believe that whatever the work it should be action oriented. It is not as if what you are saying and the way you are working have no connection. We believe that whatever you talk about has to be implemented.

A very good example from TERI of how we connect with different communities in the context of different aspects is the 'Light a billion lights' campaign. We started with 'Light a million lights', but the way it reached rural society it is now 'Light a billion lights'.

Because of TERI's genesis – we are from engineering – we believe that systems thinking should be a part of the curriculum, whether you talk about engineering or management. Systems thinking is very important. Mr Narayan showed the food web, the connections – unless you understand the nexus between energy, water, environment and emissions, you are not going to solve the problem. We do not expect you to resolve the problems within a couple of minutes or seconds. Give it time and think whether the solutions you are providing connect with sustainability. It is not like asking, "Can you give me a glass of water?" and a guy gives you a glass of water. When you are going to deliver a task, you have to do it in totality.

My colleague, yesterday, was talking about services. Maybe from the business angle, you can get money. But at the same time, are you thinking with a life-cycle approach? From the first day that a product comes into the market, you have to think carefully not just at the product level but about the upstream and downstream process. There lie the connections of life-cycle thinking, which is very important. Your culture, your values, your

profits... everything falls into place by default.

Nowadays, in the life-cycle analysis, we are not talking of environment and economics alone. There is another pillar – the social dimension. And there you see the connections. I am not a management guy, but I do believe in that. Whatever strategy you have, the word ‘strategy’ indicates that when you design anything, you talk about interventions. You have to think in a strategic way. For example, if you have to target carbon emissions, by doing that you might pass on the benefit to other dimensions as well. So in your strategy, if you can design those aspects in such a way, it works holistically in the context of sustainability.

The last point I want to talk about is something I gathered from my other colleagues and Mr Narayan – inter-personal competence. We are not competing with each other. It is more of innovating, enabling and facilitating each other, so that ultimately, all that we talked about – the multidisciplinary and interdisciplinary aspects – come about in their true sense. That is how we are working in TERI University. Thank you very much.

CLOSING REMARKS

● P D Jose

Thank you very much, Dr Jain. I want to summarize very quickly – not really summarize, but pick out two or three points which struck me as really interesting in terms of helping schools manage this transition. One is in terms of the attitudes and philosophy the school must possess – to use the panelists’ words, the ability to challenge orthodoxy, to champion, and to position the course and the school in a context that allows it to create some kind of advantage.

In terms of approach, I think that came through multiple times – the need for integration across courses in a meaningful manner, an interdisciplinary approach, systems thinking, and the way it could be structured within the institute itself.

The third element, which I think came on and off multiple times, was how do you build commitment, institutionally and otherwise?

I want to ask the panelists one question to be answered in two or three sentences, not more, because then we would like to pass this on and allow the audience to ask questions. One of the underlying ideas behind all of this is that we need to transform students. And I think the key message that came through from what you said was that even before transforming students, we need to transform ourselves in terms of how we view this animal called sustainability.

So my question for you is related to that. How can we get greater buy-in, greater commitment, from faculty as well as institutional administrators, to the idea of integrating sustainability into the curriculum? We will start with you, Carol. But if you want to pass it, we can have it at random. So who would like to go first?

● Carol Hee

I'll go first, and say it's a great question and a great challenge, and I'd love to hear what everyone else says.

I think one way we have tried to do it is by focusing on success stories – looking at case examples of, look, this is what it could mean. At dinner last night, my colleague Lisa Jones Christensen invited one of our alumni who lives in Bangalore, and he said, as a result of his interactions with Lisa and his education at Kenan-Flagler, he has started a business that provides eye-care services for the poor in Bangalore. So when we share that impact with other administrators, I think they can have a better picture of why it is so important. That's my one idea.

● S Peppin

I think, for me, what I would like to look at is, before changing the world, how can I change myself? As an individual teacher, I need to be seen as a person who is here to unlearn. I have been teaching organization, design and change. Now, can I change the paradigm to teach the same subjects from the sustainability perspective? That is what I would like. Let me be the change first.

And the second thing I would like to do is collaborate – to organize such events where we bring in people from the industry, the communities and UN agencies, and have more and more of such conversations and learning happening in our respective institutions. That is how we can spread the message and showcase the importance of sustainability.

● Giridhar Kinhal

In the context of individuals, we need to think about the academic attractions at the institute. I would imagine that two interventions would help. One is, we must immerse the faculty into real-life situations. When they join the institute, they know about their subjects. Relating that to what is happening on the ground, which I am more from, is important. If you tell them to relate their knowledge to what is happening on the ground, that will make them realize that just their knowledge is not enough. It has to be integrated with various other knowledge systems, so that sustainability

emerges as an element of interaction coming out of what is happening on the ground.

Normally, at IIFM, how do we address this? We always try to create multi-disciplinary teams to handle a situation or case. Rather than allowing only the financial aspect to be deliberated or discussed, we try to have a resource manager or a resource person or ecologist. We are known in the country for the Net Present Value (NPV) calculation for forests and natural resources. The Government of India has engaged us for the last 10-12 years to calculate the NPV of the natural resources we are handling – water, for example. If you treat them as commodities, that is the end of it. They are not as inert as commodities. They are living things, and we need to deal with an integrated approach, by putting multi-disciplinary teams for working on any issue or any aspect of management.

● Suresh Jain

We are in a profession, academics, where we say it is karma (vocation) or dharma (faith) for us. It is our religion. We are not working for money. Sometimes there are controversies, and people may say that you are in the corporate sector so you are earning more. But these are the moral values within the faculty – that you have to learn. It is a dynamic process. It is not as if after completing your degree, you learn and disseminate. No. It is a continuous and dynamic process. We have to imbibe those values within ourselves.

Again, in our system we do not say that someone is ‘staff’, or ‘a faculty member’. We say we are all professionals. We are learning from our peers. We understand each other’s concepts. That is the way TERI University works on peer learning.

Q&A

... Kaushik

I am Kaushik from the Department of Business Sustainability, TERI University. My question is with regard to the context of whether sustainability should be integrated in every course we teach. For instance, if we are teaching a course on marketing, should that have a component of marketing and sustainability within itself, or should we treat sustainability as a stand-alone course? As you have been saying, it is almost mandatory that if you are not sticking to certain credits with respect to your sustainability courses, you will not be allowed to go into your conventional management courses related to marketing and all of that.

The second point is with regard to the pedagogy. One is obviously the industry-academia interconnect – whether we should have more representations from industry within the course itself, so that it can hear right from the horse’s mouth how they are actually implementing it.

And third, with respect to the pedagogy, do we really need to do something different when it comes to teaching sustainability integrated within the business curriculum – not like we teach the normal management courses?

... **Questioner**

I am from the Institute of Management Technology, Ghaziabad. I have two questions.

What would the challenges be that face the faculty teaching a course on sustainability in a hard-core management school where none of the other courses have any components dealing with sustainability? At the end of your course, in your feedback, you may see that some of the students feel that it is very good, very useful, while others say that it is just a waste of time. Some of them may say that any course relating to sustainability and ethics is to do with moral science that should be taught in Class 8, not at this stage. How do you deal with that kind of challenge where you can’t change the system?

And the related question is, where do you see sustainability in the future of management education?

... **Questioner**

This is a question that has been plaguing me! What is the biggest resistance in terms of B-schools taking on sustainability as part of their education curriculum? The reason I am asking this is that, way back in 2008, we as a university at Symbiosis actually started an integrated Energy and Environment programme, which started looking at the entire gamut of sustainability in terms of what has been discussed. It is still a small programme. We have faced challenges – and I will be sharing that issue this afternoon. But that is the question I am posing now: why has it not then gone to the next level?

... **Questioner**

Are we trying to find solutions in behavioural transformation?

... **Dr Patil**

I am Dr Patil from Belgaum. If you start the courses on sustainable development, students may ask what kind of career opportunity they would have later. That is what I want to know.

... Questioner

When I developed a course about two years ago in the area of sustainability, the biggest challenge was to find material that was India specific for business students. Because for business students we need to have a certain kind of material – we are not trying to make them environmental engineers.

The second is, how do we find collaborators? One avenue is conferences like this. But can there be something that remains or sustains the movement after this conference is over? Can there be a platform for interaction?

And the third is funding, because in developing nations like ours, social issues have a bigger role to play and impact the other dimensions of sustainability. But research in social areas is also difficult. It is time consuming and it requires money. So for an institute like mine which is a private institute, very often it is on my time and my dime. So how do we find like-minded people?

● Suresh Jain

There was one question about an Energy and Environment programme. By nature, energy and environment are connected. In TERI University, we have an Environmental Studies and Resource Management course. Intentionally, we have not chosen Environmental Science. It gives you the opportunity to see the management perspective, social perspective, science perspective and so on. We start educating our students and have discussions at different intervals in the semester to understand what they want to learn. After one semester, there are basic foundation courses where students who come from diverse backgrounds come on one platform to understand each other. For example, someone with an economics background understands biodiversity, and so on.

From the second semester, they get to select the elective courses. In the third semester, we have a bouquet of around 40 different elective courses. It appears to be very difficult to manage, but we give the opportunity to the students. Of the 40, they can see which particular domain they want to reach.

There is mentoring – parallel mentoring, where they are guided according to what their perspective is, what they want to become and where they want to contribute, and that is how they choose their courses. This particular programme is the hallmark of TERI University.

● Giridhar Kinhal

As I have said, sustainability is a lifestyle element. Behavioural transformation was one of the questions asked. I will tell you what we did about ten years back.

This sustainability discussion is happening in a city like Bangalore, which is growing in a most unsustainable manner. When I was here in 2007-8, BESSCOM gave us a project. BESSCOM is the electricity supply corporation here in Bangalore. We said, give us five lakh rupees and we will change the behaviour of 5000 people in Commercial Street. We approached 5000 households, took their meter readings, and educated them asking if there was any scope for reduction. We interacted with them for about a month about where there was scope for reduction in the consumption of electricity.

In the second month, we gave them a format, and they identified the areas where they could reduce electricity consumption. Children were a part of the whole discussion. At the end of six months, we had changed the behaviour of those people and saved 13 per cent electricity. They were switching off fans, TVs, whatever they were using.

It was simple. We spend crores on TV advertisements and get nothing. And just a five lakh rupee intervention with 5000 families, in six months' time, changed them almost permanently – through the children. They would caution the parents saying, this needs to be switched off – why have you left it on?

If this kind of behavioural change could be taught to management students, simple interventions can make a difference. If you take the growth – overall, Bangalore had achieved about seven per cent increase in the consumption of electricity – and add it to the 13 per cent, we had saved 20 per cent electricity in that area. And this is almost permanent.

Sustainability is a lifestyle element, it has to be imbibed and somehow assimilated into the behaviour of the people.

● S Peppin

I would like to combine two questions. One is, what is the biggest resistance? And the last one, should we educate everyone or cherry-pick?

To go back to what Dr Kinhal was saying... I teach a couple of programmes at IIM Ranchi, one of which is on energy management, so I happen to teach a course on leadership for those executive students. I came across an interesting initiative, similar to what he said, called Opower. Please visit the website – Opower. It is a very amazing way in which young people come together and generate what is called individualized energy consumption measures – individual based auditing – in the USA. This is just to tell you that there are a lot of such examples.

Now, coming to what the resistance is, I think we should not be afraid of it. We should welcome it, because in the interest of the planet, in the interest of the people, if we are afraid of resistance, we will probably miss the bus.

At least that is what I strongly believe in. Let there be more resistance. That is the biggest sign to let people know that there is something called sustainability. We should welcome that – rather, we should encourage people to resist more and more.

Coming back to your question, I happened to work with TISS as Dean for some time. They have a very interesting philosophy that every student, in any programme, has to study fundamental or core courses – on the constitution, sustainability, and related to women’s empowerment. These are all non-negotiable – whether you study hospital management, human resource management, developmental studies...

That is their institutional commitment. I think it is also for leadership. People may like it or not, but it is my strong conviction that as a leader, in the long run, I am serving the nation, I am serving the world.

In XIMB, we have one course that is offered to our business management students, on sustainability and CSR. That is an elective course. Students are given a choice. But, from next year onwards, our Vice Chancellor is thinking of offering one four-credit course to all students from all programmes. It will be mandatory – compulsory. I think that is a call we have to take as an institution. And I think that, therefore, goes back to what Dr Jain was talking about – how do we build teams across disciplines? We need to break these disciplinary boundaries. If that is the philosophy of sustainability, all of us over here need to be bold enough to break those boundaries.

● Carol Hee

I will try for most questions, fewest words. Stand-alone courses are the practical solution. I think integrated is ideal. For pedagogy, having people from industry in speaking classes? Yes. I am writing a paper on how – so ask me! Resistance: I think time, expertise and the reward system, and the perceived risk. Will I get a job? My answer would be, it is like customer service. You can learn about focusing on customers, and that helps you in every job. So it’s the same for sustainability – it applies in everyone’s job. Should we educate everyone, or select students? I think broadly every student, and then select students a deep dive to become an expert in LCA (Life Cycle Assessment) and certain other things.

And finally, the challenge that sustainability as a curricular theme, a lot of times, is taken up by one faculty member. So our approach has been trying to get things that are for the whole university to include sustainability. For example, during orientation week, it is for everyone and we sneak a sustainability speaker in. Or the dean has a Dean Speaker Series for the community. So we always try to have one sustainability speaker. We try to do some things by ourselves, but also co-opting something that already exists that touches everybody.

● **Giridhar Kinhal**

Someone asked whether it was just an ethical thing to lecture on – a preaching kind of thing. It is not. As I said, if you just rely on the slogans and the several statements made by some people, then they appear to be some kind of ethical statements. But if you find practical inputs in sustainability, what exactly it means in different contexts, that is the solution to this attitude.

I forgot to tell you that in the electricity action we did, a tailor did something innovative. Innovation happens at the grass-roots level. When we went, he had 21 flashy bulbs in his shop, with Raymonds and other clothes displayed. That is necessary for their marketing. When we interacted and asked him to devise mechanisms for reducing consumption, he brought it down to only seven, with a mirror in front of each bulb. He spent maybe some 5000-10,000 rupees, and the shop was as well lit as it used to be! We gave him the first prize in that whole exercise of six months. Allow them to change in terms of behaviour, and innovation will definitely follow.

● **P D Jose**

I think the message is clear – innovation, persistence, and maybe patience. We would like to continue with the next panel. I want to thank our panelists and present them with a small memento. Thank you so much for your patience and for the great questions.

PANEL 2

EMERGING PRACTICES AND CHALLENGES OF SUSTAINABILITY IN MANAGEMENT EDUCATION

OPENING REMARKS

● **Vasanthi Srinivasan** *Moderator*

Here are three veterans, all of whom have taught in very complex environments. T L Raghuram is Professor, Faculty of Strategic Management, XLRI Jamshedpur; Anup Sinha is Professor of Economics from IIM Calcutta; and Lisa Jones is Professor, University of North Carolina, Chapel Hill, USA – our partner.

● **Anup Sinha**

With the moderator's permission, I will use the rostrum. I feel a little more comfortable standing up. I have been standing up and doing this from 1976, so it's part of my DNA.

What I plan to do – and I have told her to tonk me on the head if I cross ten minutes – is to first talk about sustainability for a couple of minutes – what is inherently problematic with it. Then I want to talk about a couple of student responses which were not touched upon by the previous panel. And then I will talk a little bit about what could be done in the classroom, followed by a couple of anecdotes from my experience of teaching – one is a personal experience and one is a case study that I heard of, both pertaining to American B-schools.

Sustainability is complex. I think Mr Narayan started with it – its interactive sub-systems, non-linearity, complex dynamics. It is also value-loading, in the sense that not only do moral/ethical issues come in, but interpretation of scientific data becomes a very, very difficult kind of problem. Science does not give us clear-cut answers in most cases. And in social sciences and B-schools, we sometimes expect everything from the domain of science to be like Newtonian physics with clear-cut laws. It isn't. The world doesn't work that way.

Therefore you are looking at a constant engagement of the individual versus bigger collectives, between public policy and individual behaviour. How do we change things? There are no easy answers. And the worst of all these complexities is that the worst outcomes – the most costly outcomes – are somewhere out there in the future. You ask a scientist or a social scientist, can you give me a date when it's going to happen? And they will tell you, I have no clue – I can give you likelihoods, and those likelihoods can be debated by 25 other stats-maths people. That's the state of sustainability. There is no clear-cut definition.

For instance, Mr Narayan, in his excellent presentation used the phrase 'sustainable growth'. To me, no physical system can grow sustainably forever. That's against basic laws of the planet. Are you talking about transformation? Then use a different word – sustainable development, maybe? Sustainable change? Whatever.

So, inherent in sustainability, the key word is ambiguity. There is deep uncertainty about it. When I joined IIM Calcutta way back in 1991, in my first PGP interview to select students, I asked my colleagues, what the hell am I looking for? And they said, tolerance for ambiguity. That's the best making of a manager. I still don't know how to test for it, but that's one of the worst limitations my students have in the classroom. A mid-20s guy out of engineering college wants specific answers – don't give me the BS about what's going to happen in the future, climate change, etc., we don't want that.

Of course, they have a perception that companies don't care about all this. So they are worried about their recruiters. That, I think, everybody has touched upon. But intolerance for ambiguity – in sustainability, you have to teach about ambiguity. There is no clear-cut answer, no clear-cut solution, even no clear-cut framing of the problem. It is something like gender. It has to pervade everything we think and do and analyse and try to solve in terms of changes. So it is a complex problem.

There is another issue which I found – which is a very positive sign in my students, but I have to sometimes struggle with them to bring them down and get into deep engagement with them. There is a very, very strong faith in the possibilities of technological change. So they say, Prof, hold it... technology will solve it... go to sleep in peace... you are an old man, don't get a heart attack.

Can technology deliver? Can technology deliver a hundred years from now? Who knows? You and I and my students won't be there. That is something we have to deal with. But I think it is a very positive sign that, inherent in them, they believe that there are solutions possible. That is going to make them go and search for technological solutions, innovations.

What do I do in the classroom? I have found, probably a good way to do it is shock them. Some of you may have heard of a chap called Herman Daly. When he was in the World Bank, he got into a scrap with them, left, went to Maryland, and tried to get a book published through MIT Press, who reneged on a written contract and took the book away because he drew one diagram. I don't tell them about Herman Daly to begin with. I show them the diagram and then I make a very provocative statement. The diagram that Daly tried to get into the World Bank Development Report 1992, for which he got into a scrap and was asked to edit it out, was two little circles. Both the circles are of the globe. In the first circle was a little square – the economic system. In the next circle was a much bigger square – economic growth – which was hitting the circumference, just about. And he says this is the essence – the planetary boundaries.

So I draw it on the green board. Even if it is black, we say it is a green board – a more correct thing to say. And then I tell them, look, in my opinion, growth for the sake of growth is the ideology of the cancer cell. This kind of shocks them – that, in a B-school, what is this nut trying to tell us? In the first year core course I teach macro-economics, fiscal policy and monetary policy, which gives me some reputational capital which I can debit. So I tell them that this is what I am getting at. They get into about five seconds of stunned silence, and then they start almost physically clawing me – how can you say this, this is blasphemy of the first order...

But there are other ways too. They like techniques. So start with systems. Don't tell them about sustainability. Do a little trick – tell them about complex dynamics, non-linearities, chaos theory, catastrophe... They love techniques. Then gradually see how you can apply them. That is another way of getting it done.

There are also other, more conventional ways. I come from a discipline which is the worst offender, in my opinion, in terms of appreciating the issues of sustainability. If you pick up a textbook of economics anywhere in the world, production comes from capital and labour alone. Nothing else is required. You have a machine, you have a human being, and the deed is done. It never happens that way. But still there are some techniques to approach this. You take the standard conventional wisdom of environmental economics – incremental change, how you can optimize pollution – that is another soft beginning which you can make. Younger people probably require that soft beginning. For old fogies like me, I think the shock treatment works a little better.

I will end with two little anecdotes. One is a famous case study. Carnegie-Mellon University was the first wired university, circa 1980, in the United States of America. Dick Vaughn was President and he made a famous statement: "Moving faculty is more difficult than moving a cemetery." People

in the faculties will know how we resist any kind of change. He hired and changed it. Faculty shot him down, saying he was wasting money. But he surreptitiously hired a computer professor – an assistant professor on the tenure track who could be kicked out any time, who was chosen not for his computer science skills but for his people skills. And he was given an agenda of one year to go individually, over coffee, like a spy or a secret agent, to convince faculty. That is a brilliant case study of change and that could be repeated, provided it is put in a different context about sustainability.

I am not very good at it, though. I tried talking about sustainability, over coffee, to a finance professor, but he almost shot me down – sort of, you are wasting my time, my good quality time over coffee!

In terms of personal experience, I know in India sometimes we say things are not working and you really want to make an impact. Get a foreigner in. Apologies to our foreign friends. Get a foreigner in – that will do the trick. Now, I won't name the university, but about ten years ago, a dean who was of Indian origin found me out. I didn't know him. In Olin Business School, Washington University, Louis came to me and said, can you take a sabbatical, come to me and teach a course on sustainable business, challenges for business? I said, why? He said the chancellor of the university had set up a Sustainability Centre. The director, to whom all the deans of the schools report, and the Business School had been resisting that. They had done nothing. They wouldn't let him hire anybody. The only way he could do it was to get somebody from X-Y-Z. They would ask, why X? Why not A, B, C? He thought getting somebody from India – from a reputed institution – would probably change them. I went there. There was an excess demand for the course! I taught it a couple of times, came back, and he was allowed to hire two or three people in the Business School to try and teach. So probably it always works. A 'foreigner' is that external agent who comes in and can make a little bit of a difference.

I think I will stop here. Everybody likes quotations. It struck me that whenever I talk of sustainability, I think of Alice in Wonderland. It's a bit of a wonderland for all of us. Alice asks the dormouse, "Which is the way to go?" and the dormouse replies, quite obviously, "It all depends on where you want to go."

● Vasanthi Srinivasan

Thanks, Anup. You have set a great time for this panel. Over to you, Lisa. Hard act to follow!

● Lisa Jones Christensen

Very hard to follow. But I want my lunch, like the rest of you, so I will take the job.

I think it has been exciting that we can move from the institutional level into each other's classrooms. And so, to do that, I think I owe you a little bit of background on my bio and, briefly, who I am. So I think it is important to clarify that before I was an academic, I was a practitioner for almost a decade, both in Silicon Valley and in microfinance. The base of the pyramid, the issues of poverty... I saw the list you posted, and thought six out of ten of those related to that issue. So I bring that to the classroom.

What does that mean? I think we also know, here as a collective, that much of the thinking that made this permission to speak about this in a business school came from strategists, right? No matter what we represent as our fields now, it was several strategists who helped bring this to the forefront of business schools. And so, studying as I was, there was pressure for me to become a strategy professor. And what I thought to myself is, yes, we need strategists to help this get in the minds of our top management. But after the top managements have turned their attention to this issue – which, gratefully, they have – now we need people to execute and change behaviour. There is a behaviour, which has very well been discussed. It's time to execute. To me, that is organizational behaviour, something we know about. There is a discipline behind that. So that is where my background and training stayed stubbornly.

What that means is that I see this as a leadership issue. I want to be really clear – I think the biggest problems of our future are as leaders and managers, in business and in leadership. Whatever term you use, it is a leadership issue. And to me, it means that you set direction, get alignment and then develop commitment around that – those three steps. Our direction should be sustainable, the alignment should be around what that means, the commitment should be to that individual, livelihood change, and then you use that skill.

So that leads to, what are the practices? If that's what you believe in – if you are willing to see it as a leadership issue – that cuts across all disciplines, right? We need leaders in the supply chain, we need leaders at the top who understand all of the disciplines. If you will move with me and accept that it's a leadership issue, then it leads to practices where we will spend some time.

There is a long list here, but we don't have time for that, so I would like to talk about a few points that I think have not been touched upon. One is, yes, we need to train them to deal with ambiguity. We write cases. We know that we leave in things, we leave out things. We call experience and narrow it down. So even our cases aren't ambiguous enough. Real life is just messy. One technique is to get practitioners – real, live companies – to share their problems and ask our students to collaborate in solving them. That means

exposure on both sides. The students will always have a perfect answer – the companies need to show mistakes, that there is a problem. So, as much as possible, that is a technique of integrating small and large consulting projects – real ones, messy ones.

Secondly, I think we need to address the issue of failure and mistakes. If we do things the way we've done them before, we will get the results. We have, now, right? So we have to train our students to be brave. But bravery implies that there will be some setbacks, some mistakes, some failures. Even the terms frame how we treat it. And so we have to make it a safe place. There are things we can do pedagogically to set them up to fail in your classroom in the number of weeks you have, so they can recover from that and realize it was not fatal. School is the safest place to make your mistakes, is it not? As soon as we get out of school, we are playing with someone else's money, someone else's life. Embracing that journey of having some failures and mistakes, and helping students frame that is necessary to innovate, is important. So: consulting, embracing and addressing failure.

I also think there hasn't been any discussion yet on embracing design – design thinking, human centred design, a new way of not mandating, but watching how people are behaving and integrating that into our solutions. I can expand on that.

I wanted to talk briefly about a specific practice – in part because we have done it successfully at UNC for about seven years. And, to Prof. Sinha's point, it was an Indian leader at our school who paved the way. But Jay Swaminathan – Prof. Swaminathan – guided, in his position as Dean, the suggestion that we break silos – the other point, the major point. He said, what could you do if you were not tied to the classroom, what could you do if I give you permission to teach a course where people are not silo-ed?

No one in real life thinks about strategy for an hour-and-a-half, and then marketing for an hour-and-a-half, and then IT issues for an hour-and-a-half. Real life is integrated. What if you didn't have to have seat time? What if you could have students all day, no other classes? What would you do with them? Where would you take them? That's sort of frightening – and exciting. It was both. But it was brave, and it was forward thinking. He gave me and others that freedom. We broke down the silos of subjects. We called it a capstone. You need all your subjects. We broke down the silos of time. Why don't we work on this for days? Why don't we work on this for hours? Why don't we leave and talk to people, watch people?

That's not possible for everyone. You may not have a champion and a leader. But if we don't talk about these extreme cases, then it won't make us all feel safer to try something new in our classes. And I am happy. I want to talk about how I integrated that idea – that paradigm shift – into standard

hour-and-a-half classes in the silo-ed world that we also have to live in. So I wanted to expose you to that extreme example, and we have been executing on it. I'll be honest – I told them I can't do it without travel. I think that is important.

The last thought in practices – because this is divided into what practices are and what challenges are – is that we need to compare the local and the global. In my courses, where I said I was exposed to microfinance for a long time – and I just told you I need to travel, the students respond to that. In a lead group, or if you can afford to do that, they want to do that. That's the best part of the course to them – that they get to go somewhere. But we won't let them leave without comparing and contrasting issues of poverty and sustainable growth in our own neighbourhood and our own country. Students tell me that if they had not been exposed to that, they could have graduated in two years and only gone to the bars, to the parks, to the entertainment venues, and not seen what we have half-an-hour, 20 minutes or two hours away from our campus – that they are changed forever, and their sense of responsibility to community and community building increases. So we build together that it cannot be exoticizing and thinking the solutions out far, far away. They are also in our hands and our communities.

I've ranged a lot in practices. I have very small, fun exercises I'm happy to share. But these extreme events, I think, are important.

To close, you were promised practices and you were promised challenges. We've certainly thrashed out on challenges before. I wanted to talk about disinterest and contrast it with what we have at Kenan-Flagler. We have extremes. I wonder if you have that. There is some proportion of students who are so far beyond us. To the point of the video we were able to see of your colleague, the students know when they ask, how are we going to educate the layers between us and impact?

A part of my answer is that the students are there. How do we make sure we are there? I wrote in my notes – disinterest. How do we deal with the few who are left, who are going into the fields of great influence, and to be honest, who think it doesn't matter? My answer is, we cannot deal with them with a moral argument. There is an evangelizing tone we have often had as a collective. We must deal with them with the things that you showed us today – issues of risk, of sustainable finance, that there is money behind this potential to change the world and make it more sustainable. We need to engage them within lines of interest. And that may be controversial. There may be a richer, better way to do it. But we are trying to be honest here – that is something that has worked.

I also am very disturbed by our terminology problems. I am particularly disturbed by the legacy we have – CSR terminology is a confusion to me.

It is a problematic block to our progress. And I also think we need to move beyond cases and integrate the research besides anecdotes. That's going to take a long time.

So the challenges are also just comfort with bravery – our own and theirs. You are all here because you have some passion. You are not here because you are followers yet. We are at the forefront. So we need each other to sustain. Sometimes, we feel alone, without support. We are breaking rules. I am not a traditional tenure case. I need support of a community. And that will help me feed and create a new community. So I assume we need each other, and that's a challenge and a solution at the same time.

The other, final, note is just that I think of the difference again, to the tactical. Business school – management school – was a professional school in the past, right? If we let it dilute with technical school, technicians get jobs. And those are important. The true professional school will see and create connections, telling our students to aspire to be professionals – which means, see these connections and create them. It means they will have legacies, they will have careers, and they will have jobs.

● Vasanthi Srinivasan

Raghu, you can have the last word.

● T L Raghuram

I will skip what has already been mentioned. I am basically going to talk about the teacher-student tensions that we encounter when an unusual subject like sustainability is taught in a business school or a management institute. Now, sustainability, as everyone has been saying, is a multi-hued, multi-layered inter-disciplinary concept. Students view it from different perspectives. Faculty colleagues are from different disciplines and view it from different perspectives. So from the word go, there is a kind of tension in the system when we want to introduce or talk about a subject like sustainability.

Sustainability is all about inter- and intra-generational equity, whereas corporate decision making happens by the quarter, by the year, or by the strategic level – the five-year level. So, students who go through ten courses, by the time they reach the sustainability course, their minds have already been tuned to understand and try to analyse everything in that short term. Profit maximization or shareholder creation gets ingrained into their thinking, whereas sustainability questions those fundamental managerial teachings that they have gone through till then. So it questions the foundations of Friedmanism – profit maximization – and, in turn, the very purpose of

management education. So students get really confused. They get perplexed by the new ideas that are thrown at them. It becomes a challenge for them to open their minds after some time.

Social and environmental issues have become really the issues for the world to be handling, and for the corporate world, increasingly, they are becoming the risk factors. Handling one of them is potentially dangerous. Handling two of them simultaneously becomes fatal if not done properly. The corporate world is extremely smart. If they see a risk, their reactions are immediately proactive. If there is a small speck of a predatory bird in one corner of the picture, and the corporate world will come out with strategies or various instruments that avoid those kinds of sustainability related risks.

Putting the whole pedagogy – how we introduce the course to the students – in the right way, I think, is the most important first step or the challenge a faculty member faces. The challenge that students face is how to open up their mind-space and accept new ideas and new ways of looking at management. If you introduce students to the power that multinational companies or the corporate world wield in this world today, bring up the thought that if there is power immediately there has to be some responsibility, accountability, transparency... all that coming to play. And if there is responsibility, there has to be responsible leadership – responsible leadership in a new emerging world order where sustainability and various related concepts are becoming the centre-point of policy making, which have profound implications for business management – business implications.

The need: Managers for the sake of management, or managers recast in the new emerging world order as social systems architects where collaboration and cooperation synergies have to be brought in. So students, after a period of time, session after session, are introduced to new concepts and new tools, new systems approaches that help corporates move and address sustainability from a different perspective. Survival is the primary objective of any business. Profit maximization and long-term profit maximization come through survival. If a peacock spends 80 per cent of its energy budget every year in growing its train back, and the deer species shed their antlers every year and grow them back, the primary purpose is survival. The bigger the antlers, the longer the train, the better the chances of transference of genetic material to future generations. Similarly, for the corporate world, if sustainability is viewed as cost versus sustainability, as a long-term investment that brings back different kinds of advantages for the company, that becomes a powerful message to the students.

Conscious re-activism versus unconscious pro-activism – the paradigm shift towards integrating sustainability: Instead of using sustainability as a PR exercise this is about integrating sustainability into the DNA of an

organization and decision making. It is how sustainability actually helps companies to reduce their costs or avoid the risks, or revenue generation, and get the most important thing that companies are now vying for – the social consent to operate, and beyond that, building on the corporate reputation, brand building. Sustainability has the potential to contribute to all these spheres.

So it is a challenge for a teacher at multiple layers. The first is buying from the institutional leadership and traditional silos approach towards systems thinking. Then, finding the right kind of faculty who have a deep understanding of the dynamics of sustainability and its influence on business decision making and vice-versa. And engaging pedagogy – how the course is designed, how it is delivered... These are all the things that make or break an institutional effort in introducing sustainability.

Student buy-in, I think, is the most important thing. Fortunately, most of us get some of the most brilliant students in this country. But 98 per cent unfortunately come from engineering backgrounds. So to introduce the systems thinking, or thinking beyond numbers... for such a student, everything has to convert into numbers. One plus one is always two for them. Is it a numbers game, then? Students are most comfortable with it, but sustainability doesn't always add up to numbers. Management science has to catch up with sustainability rather than sustainability catching up with management sciences, for example, accounting or finance. We have environmental profit-loss accounts, as with Puma, and today I am very glad to see that Wipro has done the same. I have been talking about Puma and ExxonMobil, but now I have an Indian case to discuss with the students.

Corporates also need to send the right kind of signals. For any student spending such a lot of money getting into the top management institutes for a job, are the corporates sending the right kind of signals? Are they picking up students who have a well rounded knowledge of management which includes sustainability? And do any of the interview panels that come for campus interviews ask any questions related to sustainability? No. Unless we address some of these small issues, we may not be able to mainstream sustainability in management schools across the country. That becomes a challenge. Thank you very much.

Q&A

... Dr Patil

Can we incorporate the common people, from villages – like farmers – into this concept? Otherwise, it only belongs to the elite class and corporates.

Can we extend this programme to an area that includes farmers or down-trodden people?

● **Vasanthi Srinivasan**

Is there anything that has been done about taking it to these communities?

● **T L Raghuram**

We had a wonderful presentation in the previous panel where they are actually addressing rural management and agricultural management where sustainability is being integrated. The outreach of MBA institutes is limited to a certain extent. Our priority is slightly different. But there are other institutes which are actually doing that.

● **Anup Sinha**

Can I make a quick comment on that? Most of India's micro-intervention policies – if you have been following them – have an element of sustainability or environmental management which was not there even 20 years ago. And, in case you are interested, in the last three years I did extensive field work in ten states in India and a book is coming out from Routledge this month. It is called *Another Development*. I have looked at some of the cases. The ordinary folks in India have their own understanding of sustainability. Sometimes, interestingly, it clashes with a more modern take on sustainability. Sometimes it is micro-management with macro mess.

● **Lisa Christensen**

I somehow didn't explain well that my class does not work if we do not go to what we call the base of the pyramid and include farmers and artisans. They are partners. It's not poverty tourism. Our management programme has a corporate partner and needs the information – the data – on the livelihoods of those people. My argument is that you cannot lead in the world where four billion people are your customers, your employees, or your stakeholders, for they are going to turn down your business because they don't have a part of the action. My classes incorporate that belief. So, yes, the farmers are there. They are partners. We learn from them and we are humbled.

... **Questioner**

I have two examples of what we have done in our institute, and we are a mainstream MBA school. One is that we helped farmers. I come from Pune. We were affiliated to a self-help group, a federation of farmers who are located in multiple villages in the Pune district, to design a marketing plan and participate in the National Agriculture Innovation Project (NAIP). So the idea was to find a market for that. Students were involved.

The paper we are presenting tomorrow – two of my students are here – talks of the second case, where we connected grass-roots organizations which operate in 16 states with Snapdeal.com. Some of the very issues that plague this particular category, mainly market linkages, were explored. So it is possible. We have done it.

... **Questioner**

In all the agricultural universities all over the country, they have extension education departments. Anybody familiar with an agriculture university knows that. This has been there, I think, for about 40 years or so. So farmers are already involved in the sustainability cycle.

... **Dr Sanjeeb Kakoty**

Could I add a comment to this? I come from IIM Shillong, and our experience there is not just teaching – it’s a teaching-learning kind of an experience. We take students to the community, because most of the tribal communities have sustainable practices that the corporate world could learn from. So it is the other way round. Instead of us going and teaching sustainability, it is the community that is teaching us sustainable practices. So that is also happening – a reverse kind of phenomenon.

... **Kaushik**

This question is for you, Dr Sinha. I am from the Department of Business Sustainability in TERI University. For instance, teaching a course like macroeconomics, we start with national income accounting and growth. We say growth is good for the poor, and then immediately jump ahead to the limits – to the growth process. How do you reconcile this to different parts of the world – the different stories? That is the first question.

The second is for Prof. Raghuram, regarding the positioning of the courses. You said that after brainwashing for almost one year in terms of the conventional management courses, you come to a course on business and society and suddenly you force them to think differently. Do you think the positioning matters – for instance, we start off with sustainability right at the outset and then go on to the conventional courses? Do you think that will make a lot of difference?

● **Anup Sinha**

When I teach GDP and national income accounting, I never say growth is the solution to the problem. So you should stand clarified on that. In fact, I talk about Green GDP – how to have natural resource depreciation taken

into account, give them data. Also, I think in macroeconomics, what is easy to do – since you asked the question – is that you have to talk constantly about fiscal/monetary policy, of interventions, of a sphere of state presence that is required to keep the whole system in balance. It is a systems course. That is an easy transition to sustainability.

... **Kaushik**

Thank you very much.

● **T L Raghuram**

About the positioning of a course, it depends on how much or whether the other functional area courses have an element of sustainability. If they have, then yes, sustainability should most ideally be offered in the first term. But if the other courses are not dealing with or handling sustainability angles in marketing or supply chain management or operations, or anywhere else, then sustainability can ideally be offered in the fourth term, or in the second year first term. So it doesn't make a difference. But it depends on how deep, how pervasive the perspective of sustainability is across the functional area courses in an institute.

● **Lisa Christensen**

I wanted to say something different about positioning. And I offer to you a case that will help you. I tell my students that every MBA around the whole world is taking the basic courses. That means they are not differentiated. That means that they are going to be paid to create value – and more value than the next graduate. I actually frame it as: this is your differentiator. So instead of the class as some kind of outlier that is confusing to them, I tell them: That is your secret weapon to keep in your job. You are going to know how to create value when other people walk away. Other people see these difficult problems of deforestation and alternative energy, and sanitation and water scarcity, and they walk away. And you are going to take it head on, and you are going to be hired when someone else has walked away from it.

... **Lingaraj Dinni**

B-school typically is a postgraduate thing. So students come with a specific requirement. The challenge that you face in teaching is, basically, how do they get the bank for the buck? That problem is inherent in the fact that the students are coming to actually increase their economic value or growth. And that is reflected in the kind of fees that B-schools charge. The context is set there itself. So how do you break that jinx?

What I am trying to posit is that the way the management education is structured – I don't know about globally, but in India it is a premium education offering, a high cost thing. Inherently, students will expect that career opportunities are available that pay a good remuneration. So when that is the context, how can we expect students to choose risky careers?

● Vasanthi Srinivasan

This assumption I would tend to disagree with. And I would also like to comment on it, because we are distinctly beginning to see a trend – and we'd like to see more of it. Clearly, very, very consciously, we see more students even coming from that mindset willing to look at anything that gives them an entrepreneurial opportunity, or anything that allows them to pursue a passion. There are several of them who have their values in place. But the entire socialization that has occurred has made them so focused on that end opportunity. There are several such students and, in fact, we are quite proud that there are enough of them now going back to starting entrepreneurial activities in social value creation – existing students who are moving into organizations, into looking at these areas related to sustainability.

So while they come with that mindset, a large part of it has to do with the environment. The moment they spend a year and go for the summer and come back, we begin to see those trends in terms of the subscriptions to several courses. Jose offers a course where, over the last five years, we are seeing an increase. Prof. Saurav Mukherjee is here as a participant – and I am just talking on behalf of IIM Bangalore – he offers a very nice course on looking at inclusive business models. And he has very, very good subscription.

So I think I would have agreed with you on that assumption more strongly about seven years ago. But today, I would tend to qualify that.

● Lisa Christensen

I've already said what I tell my students, which is, this is your differentiator. But further, I think we are at Sustainability 2.0. A decade ago, sustainability was almost always a cost centre. Now, green buildings are being built – you have to wait, you have to pay two to five to ten per cent more. I think we are at a place where we can make a value proposition for sustainability. So, shame on us if we are not marketing it well, shame on us if we are not catching up to 2.0, because I think we are there. And we fought hard. Many of us have fought very hard for the last decade plus to get there. So we can market our way out of this problem.

● T L Raghuram

No, I am not looking for my students to choose alternative career paths purely immersed in sustainability. I will be happier as a teacher if they integrate sustainability into whatever they do – financial management, or banking, or whatever. Whichever job they enter, there is a relevance to sustainability there. That is what the course pedagogy is all about. We bring in the relevance of sustainability in each of the functional areas – right from HR to finance, everywhere. So as a teacher I will feel more fulfilled if they integrate sustainability into what they are doing, rather than choosing a path exclusively dedicated to sustainability.

... Questioner

A guy from a village had done a business course and gone for an interview to ITC, Hyderabad. The manager of that branch was a postgraduate from Harvard. At the interview this guy expected questions on management principles, and prepared a lot for two days. And the manager asked him, could you tell me about your village profile? This guy was shocked. After that he realized that both of them were from the same village – and he didn't know its profile. Then the manager asked him which geographical region his village fell in – the guy didn't know.

Most of the time, in the school curriculum, in state syllabi, they teach everything in geography but the real conditions of a village. If a student doesn't know at the elementary level – or at the 10th Standard level – about his village and its environmental conditions, tomorrow he may become something, but he does not understand his roots. So what I'm saying is that business schools can ensure that students look towards the villages, each to his own area, and see what the situation is there and how the conditions can be bettered. That is not taking place all.

● Vasanthi Srinivasan

I have a completely different bit of evidence. Since the Indian business schools are so diverse and so geographically distributed in terms of location, in a survey we had done on business ethics and responsible business teaching in business schools one of the takeaways was that if you are a local business school, then we will have to localize even defining some of these within the context of how you want to expose it to your students, what is the kind of exposure you want. One thing we don't talk enough about is localization of content in the curriculum. And I think for a country like India, this requires more deliberation as we go forward, because one size does not fit all even though the course outline might look the same.

... **Questioner**

I would like to share an experience. I come from the Indian Institute of Forest Management where I teach environment management. Sustainability is a very broad term, and I don't think that the majority of the young students who come to join business schools have the same perspective.

I remember when Jairam Ramesh took over as Minister of Environment and Forests, he used to come to IIFM very regularly to interact with the students directly. One question he asked was, how many of you are serving in the government sector? Very few hands went up because there is no opportunity for getting absorbed in the government sector. Then he asked, what motivates you – is it the package? No hands went up. Then he asked, do you want to become an IFS officer? – because that is seen as one of the very top-rated government jobs. No hands went up and he was shocked. There were top officials accompanying him because he was the minister. He asked, what is it you want? The students replied, we definitely want a challenging career – it is not all about the money – where we can actually contribute to society and are also paid decently. He said that the top ten from IIFM would get to work as interns in the Ministry of Environment on whichever project they wanted to do.

The second thing is that I think we are a typical sectoral B-school. A majority of our students – about 80 per cent, again – come from an engineering background. Half of them – more than 50 per cent of our batch – come with experience, mainly from the IT sector. During the interview, I asked students who had been with Infosys, Wipro, CapGemini, and so on, why do you want to come to IIFM – you have a career which is so secure and you are coming to a place where it is not so secure. They said that they had done enough of it. Many have asked me to get them placed not in the corporate world, but something other than corporate where they can actually work and which has some translation into the actual.

So with the young lot, I don't think it is the way we perceive, that it is all about the money. The right kind of course curriculum, the way we introduce to the subject, those are important. But of course it doesn't have to be charity. They must have some returns on the investment they have made.

... **Questioner**

I am from Symbiosis International University. I want to add my opinion about the positioning of the course. At Symbiosis we have an Energy and Environment programme, so we teach sustainability as a part of that curriculum. But at other business schools, rather than positioning the courses as mandatory in the initial stages, I think that if every course – finance, marketing – has one or two credits, can't we have one single component

on sustainability? Like, if it is an accounts course, then sustainability in accounting, if it is a marketing course, then sustainable marketing – something like that, which will inculcate the sustainability aspect in the students while learning that particular area of work.

... **S Peppin**

We have a programme called the Tri-Continental Global Management Programme wherein we get about 30 students coming from Asia, Europe and America. They spend a semester with us and it is mandatory for them to go to a village, stay for three days, and understand what is being done – just to communicate how we make it localized.

... **Questioner**

Thanks to the august panel for the excellent insights and presentations. Just a very brief question which I raised in the previous session but didn't get the answer to – where do we see sustainability going if we look at it from the point of view of the future of management education in India and globally?

● **Anup Sinha**

The way I see it, Ma'am, you have a good ability to move ahead, as it were – always jump to the next panel! Yes, I think there will be much more marked integration of sustainability issues if I look at ten years down the road. There is a lot more of concern compared to the past. That's what it teaches me.

● **T L Raghuram**

Sustainability as a concept is on the long march, and there has been enough traction that has been built around this concept now that there is no escaping this in any sphere. Whether it is government policy or business policy or education, it will pervade everywhere. So, at least for the next 20-25 years, unless we find some real solutions for the big problems that we are facing, sustainability is going to be there – because I have already spent about 26 years in this area.

● **Lisa Christensen**

Do you remember how international used to be a point of focus? Would you think now of teaching any course without international in it? We don't teach like that anymore. To me, that is the future of sustainability – that some of us, including me, will be out of a job when I have worked too hard to identify with that differentiator. It will be gone, because it will be in all of our classes.

CLOSING REMARKS

● Vasanthi Srinivasan

Let me take two minutes to wrap up, because there were a lot of insights that came from what the panelists presented, and more importantly, from the community here that shared experiences which actually reinforced a lot of what the panel said, or added to what we did not have enough time to spend on.

I think there are three takeaways. Let me leave that with you. Everyone has used these words – complex, dynamic, volatile, ambiguous. These are the keywords that have been coming in since morning, associated with sustainability. So one of the questions for us as faculty is also, what is our own capacity to handle it? Because that will then get translated into how we develop design pedagogy and how we manage.

The second is Prof. Sinha's insight about young people and their faith in technology. And for those of us in this part of the world, believe you me, they truly believe that technology can do anything. So if technology is indeed limitless as they perceive it, then how can we make that perception into a reality, given that several of us range from techno-phobic to techno-literate? What does that mean as a challenge for us as faculty as we go forward?

And the other one is, how are we going to actually think about helping frame problems? We have all been talking about this systemic thinking. I am an average student from a business school who has been taught analytical skills, honed over two schools, and at the end of it, you are asking me to think systemically. I have been grappling with systems thinking for 15 years now, and I have made some headway but reached nowhere as far as we should. So there are several of us who come from that kind of background who are struggling to do this for ourselves – translating it in terms of pedagogy.

What I absolutely loved were the little tips we got this afternoon. One, frame it from a leadership perspective. That is a compelling argument, and I think in India it really works because everything is bad – corruption, pollution, we have everything – but do you want to be like that? That really, really works.

The second one, which again Anup said, is about shock effect. It is a great tip for us as faculty. We have enough to be able to teach with contrasts in India. How do we bring that into the classroom?

And the last one – I don't know what all of you took away, but I, for one, would love to sit in Raghuram's class because my biggest takeaway was how exciting his lights were.

For me, these are the three key take-aways for us as individual faculty, when we go back to frame whatever we are doing. Thanks to this wonderful panel!

PANEL 3

NEXT STEPS: INCORPORATING SUSTAINABILITY INTO B-SCHOOLS

OPENING REMARKS

● J Swaminathan

Good afternoon, everybody. We are into the third panel for the day, which is about the next steps in incorporating sustainability in business school education. We have three distinguished panelists here. Dr Radhakrishna Pillai is a professor of Information Technology and Systems at IIM Kozhikode (IIMK). Dr Rishikesh Krishna is Director of IIM Indore and a professor at IIM Bangalore – he corrected me saying he is on leave, technically. And the third panelist is Dr Sanjeeb Kakoty, Associate Professor of Sustainability at IIM Shillong.

Let's get started with Dr Pillai.

● Radhakrishna Pillai

Good evening, everyone. I am from IIM Kozhikode, and we have a very beautiful campus. I will start with some of the initiatives we follow there, then share some thoughts on the way ahead.

If you look at the logo of IIMK, the sustainability mantra is already there – 'Yogah karmasu kaushalam', that is, 'Excellence in action is yoga'. In one of the morning sessions we saw that, ultimately, everything depends on your own actions – and sustainability should be a part of each and every action, starting from thoughts, words and practical actions. So, diligence in karma or actions is nothing but sustainability. This is taken from the Srimad Bhagavad Geeta. Yoga means union. When we align our value system with the universal value system, that is a kind of yoga, and that is what is going to make us perfect in our actions. Our slogan, 'Globalizing Indian Thought', is also very much related. Once we are able to imbibe the meaning of all these things, sustainability will automatically become a part of us.

To review some of the sustainability initiatives in the campus... We are fully dependent on rainwater harvesting. There is a separate committee to

look after the greening of the campus, which takes care of maintaining and replacing trees, and so on. We have just started using solar energy systems. Waste and waste water management, and green computer centre initiatives have also started.

In terms of curriculum, for the PGP, we have compulsory courses in environmental management, ethics, and social transformation of India. Several electives are related to sustainability like green supply chain management, green and sustainable computing, ethics in IT, and so on. A unique feature is the compulsory social development project. Students go to NGOs in the locality, identify social problems, and try to find solutions for those.

Research is also going on in several aspects of sustainability, like the sustainable energy, micro grid – a recent collaborative project started with Delft University of Technology, The Netherlands – and the sustainability of Green IT initiatives. We also try to conduct dynamic modelling of energy and water consumption in the campus. Our journal – the IIMK journal – called The IIMK Society and Management Review, is again aligned with our objective.

We have been actively participating in many sustainability initiatives. For example, IIMK has been continuously participating in Wipro's Earthian initiatives, and for three successive years, we have won the award. There are also other efforts to initiate sustainability in a subtle manner. For example, sustainability is also related to the way you think, so throughout the campus you can see several boards with positive slogans. Most of our buildings have traditional names, which also can generate positive energy. There is a contemplation facility in the campus. Also, IIMK actively encourages diversity. For example, you may be aware that women's participation in the PGP programmes is significantly higher – one year it exceeded the number of men. So IIMK is quite well known for encouraging diversity, because diversity also, in a sense, supports sustainability. There are a lot of other new activities planned, like a herbal garden, electric cars, bikes and so on.

In a recent research project we looked at the sustainability of sustainability initiatives, because sometimes the word can be a hype, like Gartner's hype cycle. A lot of people try to do a lot of things in the name of sustainability, and unless one really understands the meaning of this, many of these initiatives may not sustain themselves.

So in one research project, we explored the sustainability of Green IT initiatives. Companies start initiatives for various reasons – maybe for building a brand, or due to regulatory constraints, government regulations and so on. But in the long run, many of them are not able to sustain these initiatives.

We started this work by looking at some of the international rankings of Green IT, like Greenpeace's ranking, and how various companies performed

over a period of time. There have been considerable fluctuations in terms of the positions of these companies, and that is what triggered this work – looking at the factors that contribute to the sustainability of sustainability initiatives, specifically in the context of Green IT. We identified three sets of factors:

1. Promoting the culture of sustainability
2. Incorporating Green IT practices into business process
3. Organizational properties

What emerged from this study was that the organizational properties are not really significant in sustaining many of the sustainability activities – for example, the size of the company, or technological resources. What is most important is the culture of sustainability. Unless and until each and every employee of the organization is really convinced about the need for it, a mere initiative may not sustain. That is what we have seen, for example, in the case of Wipro. We carefully examined various initiatives they have promoted and one of the key findings was that they have been able to build a sustainability culture within the organization that has actually contributed to their significant performance in sustainability.

The same is true of IBM, which also went through a hard time initially in sustainability. And finally, we could see a culture getting infused into the entire organization.

So the way ahead for B-schools holds several challenges:

Changing the mental model because we look from a system thinking perspective. Ultimately, this is the most effective leverage for any change. Unless we are able to bring changes in the mental model, we may not be able to bring about effective change.

Building the culture.

Funding, of course, is an issue.

Getting rid of the hype: many people say many things about sustainability. But the truth should ultimately emerge.

Collaboration: There is good scope for collaboration among management and technical institutions because we know that technology alone cannot solve the problems. However, with better management input, technology can be effectively used to address the sustainability problem. For example, IT can be used in all sectors – for reporting, monitoring the environmental performance and so on.

Bigger role for NGOs and industry.

What the **Ministry and Head of the Institution** could do is to perhaps

link some of the funding, and also incentives, with sustainability initiatives.

The next step that is required, in my opinion, is a holistic approach – a higher learning about sustainability – because if you look at postgraduate organizations, they target the low-hanging fruits. Unless we find the root need for sustainability, we may not be able to make significant contribution. So that should be the role of academic institutions.

Here’s another quote, from Albert Einstein: ‘Science without religion is lame; religion without science is blind’. So, a balance of science and spirituality is required to effectively address the sustainability challenges we are facing today.

If we look at our tradition – we know about ‘Loka samasta sukhino bhavantu’, meaning, let all the people in the world be happy. This basically aims to bring happiness to all living and non-living beings, and also expects the freedom of all entities. For example, this includes freedom of thinking. Very often, we are not able to create positive thoughts on our own because we are influenced also by our own culture, personality and so on. This, therefore, contains the essence of sustainability. If you have the right attitude towards other human beings, and also towards the environment, the sustainability problem should go away.

The origin of thoughts about sustainability is from the self, propagating through the mind, influencing our own body and our relationships, society and the environment. So the most effective leverage is to focus on the self, and ensure that you are peaceful, strong and happy. Then the rest will automatically change.

Mind: Clear, creative, tranquil, alert

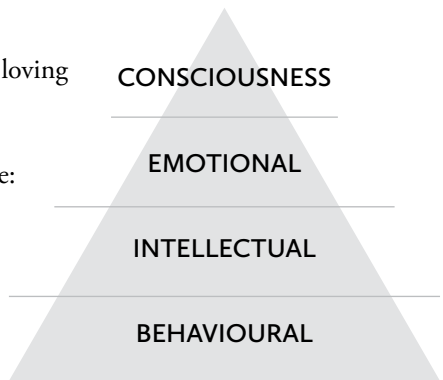
Body: Disease free, strong, balanced

Relationships: Harmonious, truthful, loving

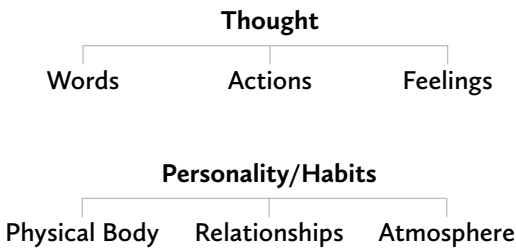
Society: Organized, just, peaceful

This shows the various levels of change:

Starting from behaviour – sometimes behavior can be changed by external pressure. But once the pressure goes away, behaviour goes back to the original. So the most effective, and the root level of change, is the change in consciousness, and that starts with thought process.



This gets expressed through words, actions, feelings, personality, habits, and so on. What you think, that you become. Every thought is going to influence others and also the environment around.



So we have looked at some system dynamics modelling of consciousness change – for example, soul consciousness versus body consciousness. It is when we are in body consciousness that greed originates.

And that is what is actually contributing to the sustainability issue. Once we are in soul consciousness, virtues, values, everything, automatically emerge, making us peaceful and happy.

So from the system thinking point of view, we look at events, then look at patterns of behaviour or systemic structures and mental models. If we continue to think the same way we used to do, we continue to get the same results. So we have to change our mental model. This is actually captured in the words of Kofi Annan: “To live is to choose. But to choose well, you must know who you are and what you stand for, where you want to go, and why you want to get there.”

So, essentially, we have to know ourselves better, and we also have to know what our purpose here is. Once we know and have better clarity on these things, automatically our thoughts, words and actions change, our attitudes towards other human beings and the environment change. And that is the ultimate solution to the sustainability problem. With this, I conclude. Thank you.

● J Swaminathan

Our next panelist is Dr Krishnan.

● Rishiksha Krishnan

Thank you. First of all, I must thank Wipro, and I must thank Prof. Jose for inviting me to this workshop.

Let me begin by speaking a little bit about what we are doing at IIM Indore. Just by way of introduction, India now has 38 Indian Institutes of Management. Indore and Kozhikode were No. 5 and No. 6, so we have been in existence now for about 18 years. IIM Indore has the largest number of students on campus in a single IIM – close to 1,500. That is because we are the only institute that is running a five-year integrated programme, in addition to the two-year MBA programme.

In terms of curriculum, we have been trying to do two things: running a very contextually relevant institute and programme, and also creating

socially sensitive managers. These two phrases, 'contextually relevant' and 'socially sensitive', are there in our mission statement and we, therefore, have been trying to do various things to be consistent with that mission that we have set for ourselves.

I would like to mention a few distinctive things we do. One, we have a Rural Immersion Programme – maybe somewhat similar to what Prof. Pillai mentioned. We send our whole first year PGP batch across to different parts of Madhya Pradesh (MP). We now have an arrangement with the MP government where they host these students across districts, and they get a chance to see a government programme being implemented in a rural context. And then, of course, they have to study it, report on it, and so on.

One thing that this has done quite effectively is to expose a lot of our students, who are primarily urban, to the rural environment, and this has certainly awakened them. We get a lot of feedback from them about this being the first time they had been to such a setting, and I am sure it has done quite a bit towards making them think about things in a different way.

The second important initiative we have in this direction is something called the Himalayan Outbound Programme, in the second year of the MBA curriculum, in which the students actually go on a trek in the Himalayas for a few days. This is somewhat of a logistical challenge for us, because we have 450 students in our MBA programme. But we have been able to manage with some good outsourcing partners. Here again, there is no emphasis on academic learning per se. It is more to enjoy nature, to actually have fun. Some of them also get exposed to yoga and they get a little spiritual exposure, depending on which group they go with.

Interestingly, I don't know what it says about our academic courses, but the Himalayan Outbound Programme has been consistently voted as the best course in the second year. I am taking it in the positive sense, and saying, okay, obviously they are enjoying it, which I think is a good thing!

So these are two major initiatives we have apart from the usual things which most other institutes have. Let me now shift gears and talk a little bit about the challenge – the next steps, so to speak. I want to share a few interesting things with you. Recently we did – or are in the process of doing – a major review of our MBA curriculum. As part of this, we have spoken to several of our alumni and recruiters. I myself have attended some of those meetings. I am really disappointed to tell all of you who are spending these three days here that not a single recruiter mentioned sustainability as an important issue in the MBA curriculum. They said lots of things, but at least in the meetings I attended I didn't hear anybody talking about sustainability.

So at least from the industry side – from the demand side – except for a few

companies like Wipro, and maybe a few others, I am not really seeing that kind of a pull from the corporate sector for sustainability concerns, which are obviously important. That is one concern I would like to mention to you since you have all been debating this issue over these three days.

There is another context which you must keep in mind. Our governments in India – be it of the previous UPA or the present NDA – have not really gone out on a limb on environmental issues, for sure. By and large, if you look at the positions the governments have taken, environmental negotiations, or what they have said about policies, it has been a fairly conservative kind of posture. I have heard different prime ministers saying that if there is a trade-off between growth and ecology, growth is what we are really going to be worried about. I mean – they may not have said it in so many words – but this is the implication of what several of them have said.

So I think we must also realize that we are in a country where sustainability is undoubtedly a critical issue, but the political system isn't quite according to the importance that it really deserves. In this context, my only concern is that I don't see a big pull. I don't know, for example, whether Wipro, in its hiring processes, looks at sustainability and so on, but I am not seeing that happening by and large. I think the only way to make all these things happen is going to be by push. And the push is going to be a bit challenging in this broad environment. So I think it is good that a lot of you have taken up these initiatives.

The last thing I would like to mention is that, while I do of course think things like environment and sustainability should be part of the curriculum, what I am more enthused about is actually making it happen in practice. I think setting a good example, involving students in sustainability initiatives, is probably a better way of making them take these things seriously. I think that's an area where we certainly want to take the next step. There are a lot of things we can do on campus in terms of greening the campus, sustainability, renewable energy, recycling... But this is only touching the tip of the iceberg. There is much more we can do. And if we can involve the entire community in that – students, faculty, staff, everyone – that will really make a big difference.

But I would like to end by saying once again that I think it is going to be a hard struggle. It is going to require a lot of push. So we really need to see how we can do that. Jose, you and the others need to see how you can start creating some pull as well, because unless the pull happens, this is going to be a tough task. Thank you.

● J Swaminathan

Thank you. Our next panelist is Dr Kakoty.

● Sanjeeb Kakoty

I come from a place known as Shillong, which is in the northeastern corner of India. It is actually the confluence of many continents. It is said that the Northeast begins where India ends, and India begins where Southeast Asia ends. There are more than 350 languages spoken in that small geographical area. Ninety-eight percent of its borders are with foreign countries. We are connected to the rest of the country by a small corridor of 21 kilometres.

The profusion of languages and cultures there has had a sobering effect on the seventh IIM, which was set up in Shillong. From the very beginning, we decided that knowledge creation was going to be a two-way process – we are there to learn as much as we are there to teach. Because what happens is that, of the 350 languages spoken there, a majority are spoken by tribal communities, which as we all know have had very sustainable ways of living their lives.

In the morning session, I had intervened once to say that we actually take our students out to go and look at examples – live examples – of how people have lived in sustainable ways for centuries. One of the places where we take students is something called a ‘living root bridge’. People construct bridges out of the roots of living trees, and these endure for as long as the tree survives. You could Google it and look at some of the living root bridges that are a trademark of the state of Meghalaya.

The other place is a sacred forest – a forest that has been in existence for thousands of years because of the belief system that you are not supposed to disrupt the forest because spirits reside there. Scientifically, I can’t tell you whether spirits actually reside there, but that is the belief and these forests are considered to be ecological hotspots.

So we have taken it upon ourselves to say that we are going to celebrate what is there in that region, and show it to the world outside. That is how the sustainability curriculum of our institute came into being.

Now, the problem we encountered the moment we started this curriculum was that which all of us face without actually realizing it – the monoculture of the mind. What has happened is that we think there is supposed to be only one right answer for all problems, and that answer is something we all need to follow. This comes in various trappings, of which the latest is called globalization. I stand here as a person who celebrates diversity because, in the natural world, the only thing that survives is diversity – in all its aspects, which includes the economic aspects of life.

To start with, what is the future of sustainability in management education? After six years of trying to teach, I have learnt that sustainability is no longer an option – it is the only way forward. That’s how the equation is. If you

look at the usage of metals in this world – the current usage, the projected usage, and the reserves that we have – it is a one-way street. So unless we change lifestyles, things are not going to be sustainable.

I am a historian. I have worked as a documentary filmmaker for almost two decades. I have toured the region extensively. And, as a historian, my PhD subject was trying to understand change through the use of technology. One of the foremost historians who did this was Arnold Toynbee, who tried to look at change in history, and he formulated a celebrated equation called ‘Challenge and Response’. It says that every civilization is faced with a unique set of challenges, and how they are met – what the response is – would determine whether that civilization is going to survive or perish. Now, of the tens of civilizations that he studied, he found that the responses of civilizations to crises that face them were sometimes inadequate, misplaced and misdirected, and then that civilization perished. Unless this civilization tries to come up with adequate responses, I am afraid that it too is going to perish. So sustainability is no longer an option.

Now, what do we mean by sustainability? At the end of two days of intense discussion, we all suffer from sustainability fatigue. If I were to ask somebody, how are you going to teach sustainable marketing, what would that mean? How would you teach a sustainable supply chain? How would you teach that these are the challenges we all face?

When we started, we thought we were going to make it a basket case where all the components would be there, and sustainability would be an integral thread running through all the subjects. And for that, we tried team teaching. Five of us would be in the same classroom, talking about sustainability from five different perspectives. It worked. But like our colleague here was saying, where is the pull? Is there a demand for this?

Some of the basic questions I have for people like all of us here are: What do we mean by sustainability? Do we mean that we continue with our present lifestyles, use ACs, electricity and energy? If you notice, all the development models we have created for ourselves are dependent on energy, and we don’t know where that energy is going to come from. Supposing there is no energy tomorrow, we will say that technology will have an answer – nuclear energy or alternate energies will have an answer. But we are dependent on the supply of energy, and we have absolutely no idea how that energy gap is going to be met.

Are we talking about the continued existence of mankind, of the present civilization as we know it? What if life on earth – or the earth’s history – were put into a 24-hour time scale? Human civilization would be less than one second. Is that the sustainability we are talking about?

There are two types of change: incremental change and radical change. All that we have been talking about during these two days is incremental change to the way we look at life. What Prof. Pillai was probably trying to convey was a radical change – a change in the way in which we behave. Now, man is a part of nature. He is not apart from nature. But ever since the industrial revolution, we have tried to dominate nature, control nature, tried to make nature our slave. But we are a part of nature.

There is a book called *The Biology of Belief* in which the author tries to say that the human body is basically a colony of cells, and each cell is assigned a unique, specific job to do. If one of those cells starts interfering with the work of the other cells and starts replicating itself in a mad kind of way, we call it a cancerous cell. Now, if the entire universe is a system – which it is – then in this system, do you think humankind has become something of a cancerous cell? Unless there is a modification in what we are doing, it is not going to work.

A couple of years ago, I somehow ended up representing our institution at the World Business School Council for Sustainable Business held in New York, and by default I was the only one from India. I was asked to give my perspective – the Indian perspective – on sustainability. That was sitting heavy on my shoulders. I didn't think I had the competence. I did two things. In the report that had been presented at the Rio Earth Conference (2012), Chapter 4 had a major part from me. There were two portions.

One, I had said that sustainability was a coin with 'sustainability' embossed on one side and the word 'justice' on the other. Anything unjust is not sustainable. What we are doing to nature is unjust. That is not sustainable. Secondly, we have talked about Gandhi quite a bit. There is a growing body of literature on Gandhian economics which talks about precisely this, and I think we need to get deeper into that.

There is something called biomimicry that is being increasingly talked about, which gives us sustainable solutions to many of our problems. One of the best examples I often use for biomimicry, is a tree. A tree is an organization by itself. It sucks out the nutrients it needs from the soil, but it doesn't suck out so much that its own existence is in jeopardy. A tree takes in only as much as it needs and, in the process, it also replenishes the nutrients in the soil. It is not that it is not growing – that organization is growing, getting larger. It is providing a whole lot of things – oxygen, fuel and shelter. Water tables are getting retained, soil erosion is stopping, and it is also creating compost. That's an organization, and it is doing very well for itself. Nobody is saying that that organization is not sustainable. Its very success is also contributing to the success of others.

I would like to ask everybody here who is an educator to spare a thought on

the way we are educating our kids. So far, we have been trying to educate them by giving them facts, facts and facts, and trying to use an exam system to see how much of those facts they have retained. I think it is time for us to alter the equation and say, enough of facts. Can we start having processing units inside them, so that they can process? And what are those units? They are the value systems that we are going to teach them – which Dr Pillai spoke about in his presentation.

I think value systems will be the processes in which sustainability will be an integral part, because one can't survive when the others die. I end, not with a shloka from the Upanishads, but something that our guests from abroad will be more familiar with. It is a thought from a speech given by a Native American chief when the white man put in a proposal to buy the city of Seattle – one of the most profound environmental speeches ever made. There are certain things that cannot be not bought and sold. Sunshine is not bought and sold, water is not bought and sold. There are certain things in life which are sacred. They are sacred for the Hindu, sacred for all other religions. So unless we can differentiate between what can be traded and what cannot, I think we are barking up the wrong tree.

Sustainability is something which is no longer tradeable. It has got to be integral –whether there is a demand or not from industry. Tomorrow, the cancerous cell may kill off the host. And after that, it dies. So if we are going to be too successful in our businesses, I am afraid the host will die and so will we. Thank you very much.

● J Swaminathan

Thank you, Sanjeeb.

It was very interesting to hear the different perspectives from the various institutions here in India around sustainability and what they are trying to do. I want to spend a few minutes tracking our own history at the Kenan-Flagler Business School. As I mentioned yesterday, this is my 15th year there, and also the 15th year of the sustainability effort there.

Because of the difference, the variance, in the stages you are all in, in terms of adopting sustainability, you might be able to gain some insights from what we have gone through in the last 15 years. That is the perspective from which I speak. I will then talk a little bit about where I think things are going from here.

The first thing that happened, which is very consistent with Dr Krishnan's remark, was that a lot of our faculty – it always starts with the faculty, right, when you start an initiative? – were not convinced that this was something we would want to do as a school. Because the question was: What is

sustainability?

This was in the late 1990s-early 2000, when the Centre was just getting created. A mini concentration in the supply chain was getting created, and sustainability was getting created along with that. There was no pull from the industry at that time but, to our surprise, the first thing that we found was that there was a pull from the students. Some students would not have come to Kenan-Flagler Business School – based on the credentials they had, they would have probably gone to Harvard Business School or MIT or Wharton. Yet, we were able to attract those students to Kenan-Flagler Business School because they were influenced by the fact that we had a sustainability curriculum.

So this helped us in terms of recruiting some of the cream of the crop of students. That was the first thing that happened. I am not saying this was a huge percentage in those days – it was maybe ten per cent of our pool. But that ten per cent was very, very good, in the upper quartile in all courses.

We have constantly looked at what the students' needs have been, and updated our curriculum – that's what keeps us at the cutting edge of education. I think the faculty understood that this sustainability was actually a worthwhile cause, because we were getting some excellent students in the classroom which we wouldn't have got otherwise. And so there was a buy-in from the faculty in terms of building more – putting more resources – into this programme.

I would say in the last ten years what has happened is that the research around sustainability has also picked up. So it all starts with the classroom. But then, there is a core group of faculty now in our school, who might be residing in functional areas, but are all doing many projects around sustainability, taking that functional perspective as the main focus area, whether it is strategy, operations, marketing or finance. So that has also made it an integral part of the curriculum.

Over time, we have actually innovated on many things. You have heard some of it from Lisa and Carol, but I'll mention some more. One of the things we did to get the buy-in, to get the pull from the organizations, and to take student interest to the next level was starting these projects on sustainability concepts for students. So we would have these mini projects during summer, where we had a faculty lead, a group of students, and worked with a company directly.

That had two kinds of positive impact. First, companies that were sceptical didn't want to put a lot of money into this. But a student project is not that expensive. So they could actually look at alternative use of energy, at water conservation, and such things. The other thing was that it built a

kind of momentum for the programme, because the students saw this as an additional competency that they could gain by being on this track. And that helped them get better jobs when they went into the marketplace, even though it may not have been classified as a ‘sustainability job’.

Lisa spoke a little bit about an immersion that we started seven or eight years ago, which is consistent with what many of you are doing. In a four month semester long time frame, it gives the student complete immersion. The idea behind it is this. We have a competency on leadership at the Kenan-Flagler Business School, which we see as one of our core competencies. The leadership programme was extensively devoted towards developing next-generation leaders in multinational or domestic commercial organizations – that means for-profit organizations. So I thought, why don’t we do a similar thing for not-for-profit organizations? Maybe sustainable people who might have a sustainable mind-set, people who may want to work for a P&G, or may want to work for a big multinational that has a big sustainability program – why don’t we create a programme for our students who are going on that track, and create a distinctive competency in that?

And that has been a great success, though Lisa did not talk about how successful it’s been. She has run the programme now for over seven years. Last year, she was awarded the Academy of Management Award for the best innovation in classroom education, along with others from the Centre – Carol and Tracy.

So what we have tried to do is constantly be on the cutting edge and innovate in this area, and it has been a journey. You might look at Kenan-Flagler Business School and say, “Well, they are ranked very high in sustainability.” It didn’t happen by chance. It has been a conscious effort, a focus. Wherever you are, if you want to have a programme that is solid and robust, I think you have to build that over time.

Now, coming back to the pull. What has happened in these 15 years is that a Walmart that didn’t even know or care about what sustainability was, today has maybe more than 1000 people working just on sustainability efforts. And Walmart is just one example. So this huge wave is happening in the corporate sector, which we saw in the morning presentation. As we saw that in the CDP presentation yesterday, lots and lots and lots of companies, all over the world, are actually focused on these sustainability efforts. So the pull is going to come. It hasn’t come here yet.

From where I see it, India is at least five or six years behind the US in terms of management education in sustainability, where corporations identify this as an important factor and then follow through with it. So for those of you who have started and are kind of getting frustrated with not having the pull, it will come over time. Today, every business school wants to have this

sustainability focus. They have concentrations in the US which are focused on this, so it has become mainstream. And soon we will be doing it in every classroom. We will not be looking at sustainability as being one class. It will actually be a way of doing business. It will be part of the way of doing business. And the day is not far away when we will have a tag along with our products that will convey how much carbon we used. Just like the vitamin contents in a product, you will have that as well. It might be required of you as a company.

Now I will open up the discussion for questions.

Q&A

● S Peppin

Since morning, we have been encouraged to make provocative statements. I am going to do so, because I am highly provoked for two reasons. Sometime back, I developed an interest in looking at the history of management education around the globe, as well as in India. To my surprise, I found that before the business world began to dominate, it was intellectual and academic thinking that dominated the world. Now we have come to a situation wherein we academicians have taken second place and the business world is driving all of us. That is why, I think, Prof. Krishnan was talking about the pull and the push.

While listening to all of you, a thought came to my mind. What if all of us decide that for the next five years, we are not going to teach any business management education in India? Just think about it.

... Damandeep

My name is Damandeep. I work with CDP. To continue the professor's provocative statement, I would like to say that in case you all need any more ammunition to get students interested, some consultants have become very interested in India's new CSR Bill, and they are all jumping at the thought that this may pump in 20,000 crore a year into sustainability. Just in terms of figures, this might help attract students – and then of course you can lead them into this wonderful world of Alice in Wonderland, and teach them the way you want to.

● Radhakrishna Pillai

Regarding the push versus pull issue, our experience is that when we discussed sustainability issues in an executive programme, there was a lot of enthusiasm and it was well received. They also shared a lot of their initiatives

within the organization. But it is also true that when we discuss this in a regular PGP class, there is no enthusiasm. That's one main thing.

● **Rishiksha Krishnan**

I don't have much to add except that I am urging all of you to take your activism beyond the classroom.

● **Sanjeeb Kakoty**

There is an interesting kind of pull that is being generated. We have students going into something known as the Prime Minister's Rural Development Fellow (PMRDF). It's a very well paying kind of a fellowship for three years. And a lot of students from IIM Shillong are vying for it – some are getting into it. So the government as an employer still continues to exist in India in a very large way. With the two percent CSR initiative that the government is promising, the PSUs will have to fall in line. I think that just might create the pull factor initially.

SYMPOSIUM CLOSING REMARKS

● J Swaminathan

Thank you to the esteemed panelists here for all their inputs.

From the three panels today, I have kind of summarized the kinds of things that many of us are doing, and I think those are all cutting-edge practices. One of them is the systems thinking perspective. We heard a lot about systems thinking and how we need to incorporate it into our education paradigm. That might mean a change of mental models, educating students even before they get into the management classroom that there is an ecosystem that they live in, and how they should operate and do business in that.

The second thing many of us have talked about is experiential learning, and how to take students to rural communities through rural programmes – whether it is to teach them how they live, or to learn about sustainable communities from them, which is even better.

The third one, which was novel, from IIM Kozhikode, is that because India has a really rich heritage in terms of spirituality, this could be another way to relate to the Indian audience, dating back to our scriptures, Gandhiji's philosophy and so on, and borrowing from the idea of the conscious mind or the spiritual mind, the yin and the yang... You might call it anything, but basically, it is a balance between the materialistic and the altruistic perspectives in life.

What do we do going forward? There were lots of challenges that were also brought up – in this panel, as well as in the other two panels. Here are my thoughts.

To succeed in any kind of environment, you need an ecosystem. You cannot do it alone. So the first and the foremost thing for everybody – not only management education here, but worldwide – is to develop collaborations. Not necessarily only between schools. It could be with partners such as Wipro, CDP, UNICEF. Whoever is interested in this idea should strive to collaborate as a group. That would be No. 1 for me in terms of going forward.

No. 2: I believe that if you want to succeed in something, you have to first show that you that you can succeed and have succeeded. So everything starts with you. What does that mean from a sustainability standpoint? For a business school, what it means is that you have to set up measures to see whether

you and your operations are really sustainable or not. Are you green? Are you environmentally friendly, just in terms of your own basic operations?

Then you have to look at your curriculum from a very sustainability based perspective. There may be multiple ways of doing this. We don't know the best way. But somebody looking from outside in – a company like Wipro – should be able to say if Kenan-Flagler is better than Cornell or if it is worse off than some other school. They should be able to make that comparison. That means there are some measures within the curriculum, within the product or the output – we don't call them products, they are basically outputs you are generating from your programmes. That should differentiate you in the marketplace, which are basically the employers or the people who are hiring our students.

No. 3 is particular to where India is right now – in demand generation – for people who are educated in sustainability. Demand generation cannot happen by itself. So it has got to be, again, a pull-push model. That means we work on developing very competent individuals in that area. But then, companies should understand the importance of such individuals and be willing to recruit them. So, create an ecosystem. That is why Point No. 1 is the most important. So that we can communicate, and then create this very positive reinforcement cycle of doing more of those things – attracting the best students, getting them into the best companies, the best companies wanting more of it, and so getting the demand generation and supply process going.

So these would be the three things in terms of where we go from here. With that, I would like to thank all our panelists for the excellent and insightful comments we have had, and also the others during the day who shared very insightful thoughts and comments on sustainability education in management.

QUOTES

● Prof. PD Jose

Associate Professor of Corporate Strategy and Policy
Indian Institute of Management Bangalore

“ There is a need for integration across courses in a meaningful manner, an interdisciplinary approach, systems thinking, and a way that it could be structured within the institute itself ”

“ How can we get greater buy-in – greater commitment – from faculty as well as institutional administrators, to the idea of integrating sustainability into the curriculum? ”

“ I think the message is clear – innovation, persistence, and maybe patience ”

● P.S Narayan

Vice President & Head Sustainability, WIPRO

“ The world finds itself at an inflection point where, depending on what we do, it will determine whether status quo, decline or flourishing is going to happen ”

“ Understanding sustainability has at least three dimensions – the cognitive, the aesthetic and the ethical. It requires the blending together of the intellect, a sensibility and a sensitivity ”

● Dr. S.Peppin

Academic Dean, Xavier School of Sustainability, Xavier school of Management

“ the culture of teaching itself has to change. Teaching and learning have to change, because this is going to be a major shift from teaching business education to teaching sustainability-related courses ”

“ I think we need to break these disciplinary boundaries. If that is the philosophy of sustainability, all of us over here – we need to be bold enough to break those boundaries ”

● Prof. Anup Sinha

Professor, Economics, Indian Institute of Management Calcutta

“ There is intolerance for ambiguity – and in sustainability, you have to teach about ambiguity; there is no clear-cut answer, there is no clear-cut solution, there is no clear-cut framing of the problem ”

“ Whenever I talk of sustainability, I think of Alice in Wonderland – it’s a bit of a wonderland for all of us – the dormouse being asked by Alice: which is the way to go? And the dormouse obviously replied, It all depends on where you want to go ”

● Dr. Tata L. Raghuram

Professor, XLRI Jamshedpur

“ Sustainability as a concept is on the long march. And there has been enough traction that has been built around this concept now that there is no escaping this in any sphere. Whether it is government policy or business policy or education, it will pervade everywhere – it will be all-pervasive ”

“ Responsible leadership in a new emerging world order where sustainability and various related concepts are becoming the centre-point of policy making, which have profound implications for business management – business implications ”

● **Prof. Sanjeeb Kakoty**

IIM Shillong

“ Sustainability is something which is no longer tradeable. It has got to be integral –whether there is a demand or not from industry ”

● **Jayshankar A Swaminathan**

UNC, Kenan Flagler Business School

“ We heard a lot about systems thinking and how we need to incorporate it into our education paradigm. That might mean a change of mental models, educating students even before they get into the management classroom that there is an ecosystem that they live in, and how they should operate and do business in that ”

● **Dr. Radhakrishnan Pillai**

Dean, IIM, Kozhikode

“ The origin of thoughts about sustainability is from the self, propagating through the mind, influencing our own body and our relationships, society and the environment. So the most effective leverage is to focus on the self, and ensure that you are peaceful, strong and happy. Then the rest will automatically change ”

● **Prof. Lisa Jones Christensen**

UNC, Kenan Flagler Business School

“ I think the biggest problems of our future are as leaders and managers in business. And to me, it means that you set direction, get alignment and then develop commitment around that – those three steps ”

