

Sustainability and Management Education in China and India: Enabling a Global Green Economic Transition

Jacob Park

Green Mountain College

Runa Sarkar

Indian Institute of Management Calcutta

Rick Bunch

Erb Institute for Global Sustainable Enterprise, University of Michigan

Abstract

There has been an active international academic engagement and scholarship in exploring the important links between sustainability and management education. However, this active engagement and scholarship appears to be concentrated in business schools and management education institutions in North America and the European Union.

We argue in this article that this gap in our understanding of sustainability management education in China and India is likely to hamper the important transition towards a greener economy on the global level. In order to examine current and future trends in sustainability management education in China and India and how those trends impact the important transition towards a greener global economy, we will highlight the key global sustainability and management education trends and will analyse how sustainability and management education can best be linked in these two respective countries.

Sustainability and Management Education in the Global Context

Aspen Institute's Business and Society Program, World Resources Institute's Business-Environment Learning and Leadership Program, and other initiatives in the U.S. and elsewhere has brought a much needed integrative sustainability focus to management education in recent years. Most notably, the United Nations' Global Compact Principles of Responsible Management Education (PRME) represents a first global effort toward a comprehensive collaboration between the UN and higher education to institutionalise corporate environmental and social responsibility issues in the curriculum of business schools around the world. There has also been in recent years an active academic engagement and scholarship in exploring the important linkages between sustainability and management education. The Academy of Management Learning & Education (AMLE) journal recently published a special issue on sustainability in management educationⁱ, while the Journal of Management Education published a special edition on greening and sustainability across the management curriculumⁱⁱ and another on teaching natural environmental issues in management educationⁱⁱⁱ. The Association to Advance Collegiate Schools of Business (AACSB) launched an Ethics Education Resource Center as part of its core program activities, while the AACSB has been organising an annual conference devoted to sustainability to mainstream corporate environmental and social responsibility issues in the curriculum and outreach activities of business schools since the late 2000s.

This healthy growth in management education and sustainability knowledge and institutional capacity, however, appears to be concentrated in business schools and management education institutions in U.S., Canada, Australia, and the European Union. Of the 100 business school programmes examined in the most recent Beyond Grey Pinstripes (BGP) report^{iv}, for instance, only six business schools (one in the Philippines; one in South Africa; two in Mexico; one in Peru; one in Colombia) were based outside these countries. Leaving aside the question of whether the BGP or any single report can be used to accurately gauge the state of sustainability and management education on the global level, one important conclusion to draw from this report is that there is not enough information on management education with sustainability content in the second (Japan) and the third (Germany) largest economies in the world as well in the so-called BRIC (Brazil, Russia, India, China) countries where there is arguably the most critical need in terms of sustainability-based management education knowledge.

This is not to suggest, however, that there is an absence of scholarship on management education and sustainability in China and India. There have been a number of notable publications on the state of management education in China^v while AMLE's special issue on sustainability in management education^{vi} featured what we regard as a comprehensive examination of sustainability knowledge and learning case study at a Chinese university to advance a more holistic sustainability perspective. Moreover, Benn and Martin^{vii} argue in their article that business academics and their schools could play significant roles worldwide in moving many countries toward more sustainable futures because these learning and change mechanisms at this Chinese University could be widely applied in the business sector.

Given the rapid and undeniable growth in the economic and business management importance of China and India in the international business and economic landscape, we argue in this article that the business school and management studies community worldwide need to know more about the scope and trends in sustainability and management education in the rapidly growing emerging economies, but particularly in China and India. We also argue that a stronger capacity in sustainability management education in two of the most rapidly growing economies in the world is an important, if not critical, factor in accelerating the global green economic transition.

Interestingly enough, if one compares the 100 business schools examined in the 2011 BGP report^{viii} with the 2011 Financial Times' Top 100 Global MBA rankings^{ix}, one can see some interesting differences. For instance, one business school in China (Hong Kong University of Science & Technology) and two business schools in India (Indian Institute of Management Ahmedabad and Indian School of Business) all appear in the top 20 ranking, with Hong Kong University of Science and Technology appearing as the sixth ranked program overall, yet none of them is even profiled in the 2011 BGP report. CEIBS (China-European International Business School) was not ranked in the 2009 BGP Report, but was ranked 70th in the 2011 BGP Report. Whether the reason for this lies in cultural, institutional, and economic considerations, we believe that it is important to acknowledge that this gap in our understanding of sustainability in management education in these countries does exist and it is equally important for business schools and management studies programmes worldwide to

start a conversation on how best to address this gap in terms of knowledge, teaching, and institutional priorities between sustainability and management education in the context of China and India.

To examine this gap in our understanding we will first highlight key global sustainability and management education trends and then examine these trends in the context of China and India. We will conclude this article with some comments on how the important linkages between sustainability and management education can best be forged in these two respective countries. Given the vast differences in economic and institutional contexts between – as well as within – such large emerging economies as China and India, our core argument in this essay is there is no single model of sustainability and management education that is going to be sufficiently robust enough to take into account the diverse and often times complex social, environmental, and economic landscapes that exist in these two countries.

Three important insights and reflections for management educators are offered in terms of sustainability and management education integration. First, the China and India case studies reinforce the critical need for management education to emphasise, and business school students to improve, their understanding of business, government and society in both established economies in North America and Western Europe, as well as in China, India, and other emerging economies.

Second, as is the case in many North American and European business schools, embedding sustainability in management education in China and India represents a much broader and complicated challenge that extends beyond simple curricular changes. What needs to happen is greater curricular experimentation both on the macro or conceptual level (e.g. what and how should the business school curriculum look like in individual Chinese and Indian business schools if one were to more dramatically integrate sustainability into the management curriculum?) as well as on the micro level (e.g. what specific types of curricular changes including executive education, MBA courses, project based service learning opportunities are required in the various Chinese and Indian business schools to mainstream greater and more effective sustainability content?).

Third, much more attention needs to be given to the actual quality, content and delivery mechanisms of sustainability-based courses, programmes, and curricula within business schools in China and India. Even to a greater degree than in the case of North American and European business schools, Chinese and Indian students expect that what they learn in business schools to be meaningful and impactful in terms of management practice and we argue that there is an important difference between what business schools are currently delivering and what students expect from them in terms of management education in these two countries.

One possible way to address the urgent need to design, develop, and embed more and better forms of sustainability knowledge in Chinese and Indian business schools might be to build closer sustainability-based academic partnerships between North American and European business schools and Chinese and Indian business schools.

Sustainability and Management Education: Theoretical Context

The roles and responsibilities of business as a global force are becoming more urgent and complex, while sustainability-related concepts are gaining recognition as essential elements in business management. As a consequence of this increased urgency and complexity, private companies need management tools and approaches that integrate environmental, social, and governance concerns into their strategic thinking and daily operations. Any meaningful and lasting change in the conduct of private companies in terms of sustainability must involve the institutions that most directly act as drivers of business behaviour and this means, most notably, that business schools and other academic institutions need to have a pro-active strategy in shaping the perspectives of business leaders through sustainability-related management education, research, management, and training programmes^x.

In response, business school institutions and academics have been trying to transform management education toward greater sustainability awareness and concerns and these various efforts can be broadly categorised on two levels. On the first, or what one might call the meta-level, there has been a call for a new and clearer vision to integrate sustainability in management education. Mark G. Edwards^{xi} suggests a meta-theoretical framework in which disparate sustainability-related theories and pedagogical approaches are better constructed and integrated in the management curriculum, while there are increasing calls to integrate - faster and more holistically than what has been undertaken so far - sustainability across the business school curriculum as well as across all functions in organisations^{xii} and for sustainability management education to connect more deeply with many other educators and students on a continuous basis with the hope that this might serve as the basis of a larger social and environmental movement to possibly impact society at large^{xiii}. As the late Sumantra Ghoshal^{xiv} noted in classic 2005 management article, getting the management theory right is more than just an ivory tower academic debate. Academic research related to the conduct of business and management has had a very significant and negative impact on management practices because business schools have been propagating theories in a manner that actively disengage students from any sense of moral responsibilities^{xv}, which is precisely the opposite of what many sustainability management educators are trying to do within the context of business schools.

On the second, or what one might call the micro-level, a wide range of ideas and concepts has been proposed to embed sustainability in management education including using service learning projects^{xvi}, integrating sustainability-related action research in MBA programmes^{xvii}, adopting systems theories^{xviii}, developing sustainability consciousness through engaging with the arts^{xix}, and applying inductive ethics pedagogy^{xx}. There is also a third, or what one might call the spatial level, by which the integration of management education and sustainability is examined by the degree of international content in the business school curriculum. Despite the rapid globalisation of companies and organisations that typically serve as employers of business school students and management research, many business schools, in terms of teaching and programme outreach, are often not as globalised as they should be^{xxi}. While the lack of internationalisation of business school curricula is more of a systemic problem and not unique to sustainability, it poses a particular challenge for a successful sustainability and

management education integration because of the rapidly increasing social and environmental footprint of companies and organisations based in China, India, and other large emerging economies beyond the normal band of industrialised countries in North America and Europe.

Key Sustainability and Management Education Issues in China and India

As two of the largest countries in the world in terms of population and economic footprint, China and India represent more than just two countries in the global landscape. What happens or does not happen in China and India economically, politically, and socially is likely to have global ramifications and it is clear that this extends to the future trajectory of sustainability and management education. We will now try to examine and analyse important sustainability and management issues in China and India.

China: Management Education in an Era of Rapid Market and Environmental Change

China's economy has grown rapidly and consistently over the past twenty years, successfully lifting about 300 million people out of poverty but also creating a litany of pollution, natural resources degradation and social strains. In 2005, President Hu Jintao dusted off the ancient concept of 'Harmonious Society', signaling a shift in policy emphasis from economic growth to overall societal balance and harmony. The 2008 Summer Olympics in Beijing showcased the government's efforts to promote cleaner development. At the same time, there are strong signals that China intends to play a major role in global climate change governance. In a September 2009 speech before the U.N. General Assembly, President Hu Jintao confirmed China's commitment to tackling climate change. He stated that "China has adopted and is implementing its national climate change programme," with an immediate and top priorities being energy conservation and efficiency." ^{xxii}

Like its growth of the national economy, business schools and management education institutions have also developed quickly in China. The country's first business school, the Tsinghua University School of Economics and Management, was launched in 1989. By 1999, 32 MBA programmes had received national accreditation, and in 2008 the number stood at 128. The Ministry of Education has greater formal jurisdiction over business schools in China than do its counterparts in many other countries, leading schools to acknowledge government policy initiatives, including 'harmonious society', in their programmes. The most important and fundamental trend is the increasing saliency of the term 'sustainability' in China, in the government, business community and among business schools. Still, the more frequent issue framings are corporate social and environmental responsibilities (CSR).

The CSR framing may reflect continuing emphasis on 'responsibility' as a key driver of corporate sustainability behaviours, understood to centre on responsiveness to formal and informal government requirements. The environmental framing may be rooted in Chinese business schools' historical roots in quantitative disciplines: in early years of business education in China, many professors were drawn from engineering and economics backgrounds so consequently, environmental management issues were examined more

much through the economic-technical lens while social issues were regarded with little practical relevance.

Younger business people in China, particularly those enrolling in MBA programmes, seem to be struggling to reconcile the growing importance of sustainability and CSR with their perceptions of the business world. A 2007 survey by The Aspen Institute Center for Business Education of 748 MBA students at 14 leading Chinese business schools found that student interest in sustainability topics is conflicted^{xiii}: “Chinese business students - like their counterparts in the West - believe that a well-run company adheres to a strong mission, operates according to its values and a strong code of ethics and adheres to progressive environmental policies.” On the other hand, they believe that corporate recruiters are primarily looking for functional and industry expertise, and have little interest in students’ understanding of the social and political context of business or in students’ personal integrity.

This gap, between personal values and perceived employer demand, may diminish students’ interest in studying topics like sustainability while in school, but may also suggest an opportunity for employers to attract top MBA talent by positioning themselves as sustainability or CSR leaders. In particular, some evidence suggested a generational shift in attitudes: for example, younger students were more likely to see bottom-line business concerns such as increased revenue, reduced cost and risk as drivers of corporate sustainability behaviour, whereas older students were more likely to see concerns of external stakeholders such as governments and the public as primary drivers. Because China’s millennial generation is beginning to enter MBA programmes, this gap in opinions between younger and older students may have significant impacts on business-school curricula and on employers’ efforts to attract top MBA talent.

Trends in efforts to integrate sustainability into management education in China have had unsteady results but seem to be picking up steam over time. In 2008, the National MBA Education Supervisory Committee, which accredits MBA programmes in China, mandated that all MBA and executive MBA programmes include an ethics module, suggesting that a firmer foundation for integration of ethics and sustainability. Several business schools, including Guanghai School of Management, Zhejiang University Business School, and China-Europe International Business School, have organised conferences addressing corporate environmental and social responsibility topics. While course offerings data are difficult to gather, the Guanghai School may be leading the way, with courses on Sustainable Venturing, Corporate Environmental Management and Corporate Social Responsibility.

While there are a number of important institutional and cultural factors to consider, the authors of this article would argue that the foremost barrier to better integration of sustainability into management education is the need for a stronger scholarly foundation. As was historically the case in North America and Western Europe, top Chinese journals in business school disciplines have published little sustainability research. Very few senior Chinese professors have any research background in sustainable business, and therefore offer junior professors little useful support and sometimes put up opposition that can derail a pre-tenure professor’s interests. We speculate that the continuing growth, diversification and

globalisation of Chinese management education will create a more welcoming research environment for sustainable business topics.

Presumably, a stronger intellectual foundation will lead to greater inclusion of sustainability in business-school curricula, but there are other barriers to overcome along the way. Very little sustainable-business curriculum material is available to professors, and even less that is set in, or appropriate to, China. Chinese professors have little or no incentive to develop teaching materials, which have no bearing in a tenure case, little opportunity for publication in peer-reviewed journals, and offer no hope of financial reward. While several leading Chinese business schools have opened case centres, they appear to stock only home-grown material and generally do not grant outsiders access to their collections. In the absence of peer-review, publication and financial incentives, authors of teaching materials can hesitate to share them for fear of losing face should mistakes or disagreements come to light.^{xxiv}

Surging corporate engagement in CSR and sustainability in China bodes well for similar developments in management education. The State-Owned Assets Supervisory and Control (SASAC) Administration created a requirement in 2007 for state-owned enterprises to publish annual CSR reports, which is creating greater transparency and more pressure on management to improve CSR and sustainability performance. Many western firms operating in China have begun to shift from symbolic, or superficial, CSR initiatives (e.g., philanthropy, building schools and donating schoolbooks, planting trees) toward strategic CSR. Coca-Cola, for example, now emphasises use of its technology and distribution expertise to improve availability of safe drinking water in rural China. These developments, along with continued rollout of national environmental laws and international issues such as climate change abatement, promise to create greater demand for scholarship and managerial training in sustainability topics.

India: Business Schools Responding to Economic and Sustainability Pressures

The Indian economy is at a developmental crossroad. Not only is its structure undergoing a decisive change but urban India is also inculcating the features of the new economy that are prevalent in highly developed countries, including greater consumerism and wastefulness at a very rapid pace. Meanwhile, as poverty reduction and economic growth remain the prime objectives of national policy^{xxv}, India is resisting calls by developed countries to take on specific targets for its reduction of greenhouse gas emissions despite the fact that its total emissions are already the third largest in volume worldwide (although lower than the first two by a substantial margin) and will continue to rise^{xxvi}. Moreover, it is among the countries that are most vulnerable to the effects of climate change, including losses due to lower agricultural production, rise in sea levels and increased frequency of extreme events. The costs of the changing energy strategy that India must adopt are substantial^{xxvii}.

In response to the change in global expectations of managerial qualities, Indian business schools and business curricula at universities are re-orienting themselves to focus on sustainable development. Businesses are feeling the pressures of environmental legislation and the need for environmentally responsible management practices and are requesting that business schools provide education in environmental issues^{xxviii}. The University Grants

Commission of India has made it compulsory for management schools under its control to offer environmental management as a core course^{xxxix}. Moreover, the Ministry of Environment and Forests has conducted three consultative workshops, and will conduct more such workshops, to introduce and enhance the environment content in business and management education, and launched a website as well to integrate environmental concepts into management education^{xxx}. A recent study based on a sample of 17 faculty from 35 business schools concluded that maintaining student interest in sustainability topics and balancing the “monetary and sustainability orientations of the curriculum” are challenging^{xxxi}. Some specific programmes on sustainability have been launched such as an MBA in business sustainability by TERI University in New Delhi and a two year full time residential MBA in energy & environment launched by Pune-based Symbiosis Institute of International Business^{xxxii}. Many others are starting courses in climate change, clean technology and carbon trading to be in sync with globally emerging trends in business and environment.

Of course, specialised Institutions such as the IBRAD School of Management & Sustainable Development, with education centres across the country were set up as early as 1985 to address the need to train and sensitise management professionals on incorporating sustainability practices into everyday activities and decisions. The recently opened Rajiv Gandhi Indian Institute of Management at Shillong (the 7th IIM set up by the Indian Government) has sustainability in management education as its key thrust area. Many of the elite business schools of the country, including the Indian Institutes of Management, Xavier Labor Relations Institute, Management Development Institute etc., offer shorter duration programmes for business executives and have nurtured research centres dedicated to the analysis of business issues arising out of the sustainable development challenge. Courses offered by these business schools integrate the experiences gained from conducting management development programs and consultative research into the students’ curriculum making the classes a rich experience. There is an increasing demand from industry for the inclusion of some sessions on sustainable business management in refresher general management courses for management professionals. This bodes well for academicians as an increased industry interface leads to better applied research opportunities on sustainable management.

Moreover, coursework on sustainable development form a part of the core curriculum, and specialist courses like clean energy, managing ecological services, environmental risk assessment, healthcare, carbon trading etc. are taking centre stage as popular electives^{xxxiii}. Modules on sustainable management practices developed by organisations such as Green Add or Centre for Environment Education (CEE) are increasingly being used in business schools to supplement their curriculum. Project work in the area of green marketing, social marketing, developing financial indices that take into account a firm’s CSR practices and investments, social responsibility reporting etc. is actively encouraged, and several doctoral students in business schools are now working on sustainability related issues^{xxxiv}. Many reputed business schools, such as those under TERI University, National Institute of Industrial Engineering, Symbiosis Institute of Business Sustainability etc., offer recognised MBA degrees in Business Sustainability as well. Despite such positive trends of mainstreaming environment and sustainability issues into business school curricula, a study conducted in

business schools in western India in 2006 claims that only 5 percent of students could recall case studies of environmentally friendly business units and just 12 percent were aware of national environmental policy and its implications for environmental standards and norms for businesses.

According to this research, most elective courses on sustainability lose out on student enrollment to 'popular' courses in finance and marketing, as the student perception is that recruiters base their hiring decisions on knowledge in these subjects. On the positive side, however, all students agreed that everyone should contribute towards environment conservation and 80 percent agreed that they could play an important role in sustainable development as business drivers^{xxxv}. Efforts of industry to engage with business schools have resulted in the Piramal Fellowship for Sustainable Business, the Indian Fund for Sustainable Energy, sponsored by the Mahindra group, or the annual Tata Business leadership award with the current theme being sustainable globalisation. Besides, events promoted by Foundations such as the AI Gore Sustainable Technology Venture are being hosted and promoted by the most prestigious business schools of the country, leading to a lot of intellectual curiosity about sustainability in management education. Thus, there is evidence of a disconnect between the local problems related to sustainability that the country faces, which are viewed with a degree of helplessness, and the larger global issues related to sustainability which elicit a lot more interest.

Part of the reason for this anomaly in student perception could be attributed to the wide disparity in quality of courses offered across the range of business schools in the country. Also, in general, business–university linkages in India are relatively weak, which mean that exposure to real life sustainability issues faced by firms is limited, resulting in some courses becoming more of a 'grade getting' academic exercise rather than a means of equipping students with an understanding of social, environmental, and economic perspectives required for business success in a competitive global economy. A virtual system managed under the umbrella of the Ministry of Environment and Forests for archiving information and data on various environment-related activities including climate change, set up in 1982 was a good start in this direction, but little was done to follow it up.

At present, both business and non-business actors in India are being challenged to take on new roles in the country. Most critically, India needs to move forward on its own indigenous sustainable model of business, society, and environment development rather than imitating or emulating the Western growth model. This will involve, among other things a change in business practices, making it important to develop a new paradigm of management education, the way it is conceptualised and practiced to fit the Indian context. The focus of management education needs to be not only on mitigation, that is, reducing resource use intensity and emissions, but also on adaptation, as business has to be sufficiently agile to respond to the sudden and drastic changes in environment in India that climate change will bring about. Moreover, the global meltdown has led to a shift in expectations of key responsibilities of a business leader from only making short-term profits to also planning for a consistent stream of returns that is sustainable in the long run. Industry, given its repository of leadership capital, must play a much larger role in economic and social development, for

which sustainable and ethical practices, and accountability to consumers and the public at large is essential.

Looking Forward: Sustainability and Management Education in China and India and Global Green Economic Transition

The China and India case studies discussed in this article offer three important insights and reflections for management educators in terms of sustainability and management education integration in these two respective countries as well as the importance of this integration in accelerating a global green economic transition.

First, the China and India case studies reinforce the critical need for management education to emphasise, and business school students to improve, their understanding of business, political and social issues in both wealthier countries in North America and Western Europe as well as in China, India, and other emerging economies. As noted in a recent Leadership Summit on Business Education organised by the Aspen Institute Business and Society Programme^{xxxvi}, there is a critical need for business school graduates to respect and understand more deeply the interface of business, government, and society. Business school deans, professors, as well as business executives, who gathered at the Aspen Institute Leadership Summit, observed that business leaders who grasp the policy context in which business operates are more effective as business leaders and as citizens. Business schools need to introduce “a more nuanced narrative of the embeddedness of markets” and to develop “a more rigorous treatment of the business and society relationship”^{xxxvii} and the China and India case studies in this essay highlight the importance of taking this challenge from the local/national to the international political economy context.

Second, as is the case in many North American and European business schools, embedding sustainability in management education in China and India represents a much broader and complicated challenge that extends beyond simple curricular changes. Sustainable management education is more than starting courses on environmental management or sponsoring student recycling initiatives; it is about rethinking what and how it is taught as well as making connections between the classroom and management practice^{xxxviii}. The linkages between research, teaching and management practices among Chinese and Indian business schools are no doubt weaker than those of their academic peers in North America and Europe and outside of few select examples (e.g. China Europe International Business School’s [CEIBS] sustainability and responsible leadership program), sustainability issues have not been mainstreamed into the management education curriculum. Given that the drive for sustainability and management education integration at most North American and European business schools still remains at the early stages, the current state of sustainability and management education in China and India may not be surprising.

In order to achieve the interlinked goals of strengthening sustainability management education and accelerating the global green economic transition, two things need to happen simultaneously: greater curricular experimentation on the macro or conceptual level (e.g. what and how should the business school curriculum look like in individual Chinese and Indian

business schools if one were to more dramatically integrate sustainability into the management curriculum?) as well as on the micro level (e.g. what specific types of curricular changes including executive education, MBA courses, project based service learning opportunities in the various Chinese and India business schools are required to mainstream greater and more effective sustainability content?). Our argument is consistent with the conclusion of one of the articles in the 2010 Academy of Management Learning & Education special issue on sustainability and management education that argues for diverse differences in sustainability-related curriculum design from business schools of different cultural, economic, and institutional backgrounds. Since curriculum design needs to reflect the business, government, and societal reality of local circumstances, it is important that sustainability-linked management education reflects the local conditions as well as any global trends.^{xxxix}

Third, although there is growing interest amongst Chinese and Indian students for greater and better integration of sustainability issues into the management curriculum, much more attention needs to be given to the actual quality, content and delivery mechanisms of the courses or programmes. Even to a greater degree than in the case of North American and European business schools, Chinese and Indian students expect that what they learn in business schools to be meaningful and impactful in terms of management practice and there is an important difference between what the business schools are currently delivering and what students expect from business schools in terms of management education in the two respective countries. While it remains unclear if the leadership needed for sustainability and management education integration needs or should be more of a bottom up (i.e. students) or a top down (i.e. business school deans and other administrators) process, we suspect that the process for sustainability and management education integration will depend to a great deal on the individual institutional contexts of business schools in China and India.

One possible way to address the urgent need to design, develop, and embed more and better forms of sustainability knowledge in Chinese and Indian business schools might be to build closer sustainability-based academic partnerships between North American and European business schools and Chinese and Indian business schools. Given the array of diversity in terms of institutional capacity, social resilience, and economic resources in these two countries, there is not going to be one simple model of sustainability and management education integration for China and India any more than there is a single model for North America or the European Union. The 2010 World Exposition taking place in China and the Premier League for cricket based in India, and other noteworthy business and cultural news, have provided these two countries with a global prominence that would have been unthinkable even a decade ago.

In cooperation and support of their colleagues in North America, Europe, and elsewhere, what will be critically important is for management educators, private enterprises, and students in the Chinese and Indian business schools to develop their own indigenous models of business, society, and environmental stewardship, and not just adapt the sustainability and management curriculum that exist in North American and European business schools. Only by looking inward is it likely that the sustainability and management education integration in

China and India will accelerate the global green economic transition and will be able to design and develop triple bottom line market strategies that can more effectively respond to the economically weak, socially disadvantaged, and environmentally vulnerable population at the base of the pyramid.

BLR DISCUSSION FORUM

Do you want to discuss the issues raised in this article with fellow readers?

[Please click here to go to the BLR LinkedIn® Discussion Forum now!](#)

References

- ⁱ Starik, M. & Rands, G. & Marcus, A. & Clark, T. (2010) 'In Search of Sustainability in Management Education' *Academy of Management Learning & Education* 9 (3) 377-383
- ⁱⁱ Rusinko, C. & Sama, L. (2009) 'Greening and Sustainability Across the Management Curriculum' *Journal of Management Education* 33 (3) 271-275.
- ⁱⁱⁱ Egri, C. & Rogers, K. (2003) 'Teaching About The Natural Environment in Management Education: New Directions and Approaches' *Journal of Management Education* 27 (2) 139-143.
- ^{iv} Aspen Institute Business and Society Program (2011) 'Beyond Grey Pinstripes 2011—2012: Top 100 MBA Programs' New York, NY: Aspen Institute Business and Society Program.
- ^v See Alon, I. & McIntyre, J. (2005) *Business and Management Education in China: Transition, Pedagogy, and Training*. Singapore: World Scientific Publishing Co. and Tjosvold, D. & Yu, Z. & Fang, S. (2004) 'Cooperative Learning: Potentials and Challenges for Chinese Management Education' In C. Wankel and R. DeFillippi (Eds.), *The Cutting Edge of International Management Education* Charlotte, North Carolina: Information Age Publishing.
- ^{vi} Starik, M. & Rands, G. & Marcus, A. & Clark, T. (2010) 'In Search of Sustainability in Management Education' *Academy of Management Learning & Education* 9 (3) 377-383

^{vii} Benn, S. & Martin, A. (2010) 'Learning and Change for Sustainability Reconsidered: A Role for Boundary Objects' *Academy of Management Learning & Education* 9 (3) 397-412

^{viii} Aspen Institute Business and Society Program (2009) *Beyond the Grey Pinstripes* <http://www.beyondgreypinstripes.org> New York NY: Aspen Institute Business and Society Program

^{ix} The Financial Times Global MBA ranking (2011) can be found in <http://www.ft.com/intl/businesseducation/mba>

^x United Nations Global Compact (2007) *The Principles for Responsible Management Education* New York, N.Y.: United Nations.

^{xi} Edwards, M. (2009) 'Visions of Sustainability: An Integrative Metatheory for Management Education' In C. Wankel and J. Stoner (Ed.) *Management Education for Global Sustainability* Charlotte, North Carolina: Information Age Publishing.

^{xii} Rusinko, C. & Sama, L. (2009) 'Greening and Sustainability Across the Management Curriculum' *Journal of Management Education* 33 (3) 271-275.

^{xiii} Rands, G. & Starik, M. (2009) 'The Short and Glorious History of Sustainability in Management Education in North America' In C. Wankel and J. Stoner (Eds.), *Management Education for Global Sustainability* Charlotte, North Carolina: Information Age Publishing.

^{xiv} Ghoshal, S. (2005) 'Bad Management Theories Are Destroying Good Management Practices' *Academy of Management Learning & Education* 4 (1) 75-91

^{xv} Ibid

^{xvi} Rands, G. (2009) 'A Principle-Attribute Matrix for Environmentally Sustainable Management Education and Its Application: The Case for Change-Oriented Service-Learning Projects' *Journal of Management Education* 33 (3) 296-322

^{xvii} Benn, S. & Dunphy, D. (2009) 'Greening and Sustainability Across the Management Curriculum' *Journal of Management Education* 33 (3) 276-295

^{xviii} Porter, T. & Cordoba, J. (2009) 'Three Views of Systems Theories and their Implications for Sustainability Education' *Journal of Management Education* 33(3) 323-347

^{xix} Bathhurst, R. & Edwards, M. (2009) 'Developing a Sustainability Consciousness through Engagement with Art' In C. Wankel and J. Stoner (Ed.) *Management Education for Global Sustainability* Charlotte, North Carolina: Information Age Publishing.

^{xx} Taft, S. & White, J. (2007) 'Ethics Education: Using Inductive Reasoning to Develop Individual Group, Organizational, and Global Perspectives' *Journal of Management Education* 31(5) 614-646

^{xxi} Doh, J. (2010) 'Why Aren't Business Schools More Global and What Can Management Educators Do About It?' *Academy of Management Learning & Education* 9(2) 165-168

^{xxii} The full text of Hu Jintao's 2009 speech can be found in
<http://www.nytimes.com/2009/09/23/world/asia/23hu.text.htm>

^{xxiii} Bunch, R. et al (2007) *Where Will They Lead? Engaging the Values and Vision of China's Next Generation Business Leaders* New York, NY: Aspen Institute Center for Business Education.

^{xxiv} The information and analysis is drawn from research and survey work conducted on behalf of the Aspen Institute's Chinese Business School Initiatives
<http://www.aspenbce.org/networks/china.html>

^{xxv} Ministry of Environment and Forests, India (2007) *Addressing Energy Security and Climate Change* New Delhi, India: Government of India.

^{xxvi} Ministry of External Affairs, India (2009) *The Road to Copenhagen: India's Position on Climate Change Issues* New Delhi, India: Public Diplomacy Division, Government of India.

^{xxvii} Parikh, J.K. & Parikh, K. (2002) *Climate Change: India's Perceptions, Positions, Policies and Possibilities* Paris: OECD.

^{xxviii} Unnikrishnan, S. & Hegde, D.S. (2007) 'Environmental Training and Cleaner Production in Indian Industry - A Micro-Level Study' *Resources, Conservation, and Recycling* 50(4) 427-441

^{xxix} Krishnamoorthy, B. (2005) *Environmental Management* New Delhi, India: Prentice Hall

^{xxx} NATCOM (2004) *Education, Training and Public Awareness in India's Initial National Communication* New Delhi, India: Government of India, 161-182.

^{xxxi} Singh, T.P. , N.S. Bisht, M. Rastogi (2011) 'Towards the Integration of Sustainability in the Business Curriculum: Perspectives from Indian educators' *Journal of Global Responsibility* Vol. 2 Issue 2.

^{xxxii} Tikoo, R. (2009) 'Management Education Gets an Environmental Edge' *The Financial Express* May 22.

^{xxxiii} Ibid

^{xxxiv} Solkhe, A. (2006) 'Environmental Education for Managers: A Paradigm Shift' in Sahay, Stough, Sohal and Goyal (Ed.), *Green Business*. New Delhi, India: Allied Publishers and NATCOM (2004) *Education, Training and Public Awareness in India's Initial National Communication* New Delhi, India: Government of India.

^{xxxv} Divekar, G. & Mali, P. (2006) 'Role of Management Institutes in Solving Environmental Issues and Problems' In Sahay, Stough, Sohal and Goyal (Ed.), *Green Business* New Delhi, India: Allied Publishers.

^{xxxvi} Aspen Institute Business and Society Program (2011) *Leadership Summit on the Future of Business Education* New York, NY: Aspen Institute Business and Society Program.

^{xxxvii} Guthrie, D. (2011) *Leadership Summit on the Future of Business Education* New York, NY: Aspen Institute Business and Society Program, 2.

^{xxxviii} Acutt, N. (2010) 'Business Education' In C. Laszlo, K. Christensen, D. Fogel, & P. Whitehouse (Eds.), *The Encyclopedia of Sustainability, Vol. 2: The Business of Sustainability* Great Barrington, MA: Berkshire Publishing.

^{xxxix} Wu, S. & Huang, S. & Kuo, L. & Wu W (2010) 'Management Education for Sustainability: A Web-Based Content Analysis' *Academy of Management Learning & Education* 9(3) 520-531.