

A growing subject

Education and Sustainable Development

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Moderator: **Asit K. Biswas**, President, Third World Centre for Water Management
Francisco J. Lozano, Co-ordinator, Sustainable Campus Programme, Tecnológico de Monterrey, Mexico

Hideaki Oda, Councillor to the President, Japan Water Forum

Bernard Ramanantsoa, Dean, HEC, France

Daigee Shaw, President, Chung-Hua Institution for Economic Research, Chinese Taipei

Dennis Tirpak, Associate, International Institute for Sustainable Development

Thierry Touchais, Executive Director, International Polar Foundation

Asit K. Biswas began by situating the difficulty in defining the concept of “education and sustainable development”. There was no consensus about the meaning of this, even among experts. At a UN-organised forum 15 years ago, dedicated to education and development, the debate reached deadlock because of this confusion. Mr Biswas said the purpose of this session was to answer two major issues: the relationship of education with sustainable development, and how the two can be brought closer together.

For **Francisco J. Lozano**, it was the responsibility of higher education institutions (HEIs) to both teach practical aspects of sustainable development and to imbibe their students with a positive attitude towards ecological considerations. “Graduates from HEIs will be the next decision makers across a number of areas, but will also be acting as citizens in their communities and families,” he said. It was why his own educational establishment joined technological and ethical studies to the courses dedicated to sustainable development activities. It was a choice of society, but if it decides to take the path towards correcting ecological damage, it was crucial that the next generation held a rounded view of both the technology and politics of sustainable development.

Bernard Ramanantsoa said sustainable development was now a source for future economic development, and this was the driver for its introduction into his institute’s curricula. Society was at a turning point, and accelerating fast in the direction of sustainable development. At his own establishment, one of Europe’s most successful business schools, he had at first been critical about the introduction of courses applicable to sustainable development activities. “I believed few students would enrol, that the courses would be comparatively poor in educational quality, and that there would be no promising professional avenue for those who graduated,” he said. “I was wrong on all counts.”

The courses are highly popular and his school now offers a specialised masters degree in sustainable development, and two chairs are linked to the subject. He believed that an added push for broadening the introduction of such courses across higher education is

that it figures as a criterion in international ranking of higher education institutes such as HEC.

Environmental education has been on the curriculum of schools in Chinese Taipei since the 1990, explained **Daigee Shaw**. "The efficient use of resources is not just for economic reasons, but a crucial issue for the long-term development of his country, Mr Shaw said. Chinese Taipei has adopted the "whole school approach" to environmental education, which is taught in social sciences, arts and humanity, languages, natural sciences, health and sports.

But "enhancing environmental perception, awareness and knowledge through education alone does not guarantee environmentally-friendly behaviour," he said. He cited the example of university campuses where a survey found that those students who had fixed-fee energy bills failed to switch-off electrical appliances, as opposed to those who paid real energy costs. On a wider scale, annual public opinion surveys in Chinese Taipei revealed that throughout the 1990s the environment was the primary concern for the majority of those polled until the year 2000. Then, economic development became the prime concern, which Mr Shaw believed was a direct result of the South-East Asia financial crisis and a recession in Chinese Taipei. "This suggests that the choice between environmental protection and economic development relies fundamentally upon the overall economic status," he said.

"In 2006, Chinese Taipei achieved a daily per capita garbage volume of 0.6kg, down from 1.1 kg per capita in 1997," he said, resulting from a 15-year government information campaign and the introduction of hefty fines for non-recycling. In conclusion, he said sustainable development required a mix of both educational and economic incentives, but also social pressure.

Hideaki Oda focused on the issue of water. He said it was a word that in Asia carried more meanings than in European languages, and implied nature and its destructive and constructive forces. He recalled his own experience of a mudslide in Japan, when he was called, as a government official, to the scene where seven people were buried alive. "A surprising calm dominated the disaster site," recounted Mr Oda. When he asked the mayor why this was so, the local official cited a proverb which says "Without human losses, the rainy season cannot come to an end." Mr Oda regretted that "even in Japan in the 21st century, flooding and high-tides were seen as too mighty enemies".

"As long as such attitudes dominate, we cannot expect to achieve sustainable development in this region," he said. "We need long-term education over several generations to convince populations that flooding should be an enemy for us to fight against."

"Sustainable societies can only be maintained when all its members are aware of the reality," said Mr Oda, "and this effort is called education."

Dennis Tirpak believed the past decade had seen major advances in education about sustainable development. "But we need a full generation for change to come about and we don't have that time," he warned. He said that the private sector had a huge role to play in gaining precious time. "Advertising culture is largely about convincing people to buy high-polluting consumer goods," he said, and that had to change. The culture of reviewing performance, in institutions or corporations, four or five years after events must also stop because the officials who need to be brought to account for results have often moved on by then. "It makes a big difference having annual reviews," he said. "Wouldn't it be wonderful if the top companies in indexes like the FTSE accepted regular reviews about their contribution to sustainable resources?" he asked, echoing Mr. Ramanantsoa's remark about the ranking of higher education institutions. Sustainable development would be greatly helped through greater transparency of information, performance indicators and regular critical assessment of the actions of individuals, institutions and corporations.

Sustainable development and climate change are complex topics to teach, suggested **Thierry Touchais**. "They must be merged into existing curricula, and related to existing subjects such as physics, biology, economy and geography," he said. Scientists were increasingly motivated to disseminate information about their research, and there were interactive tools with which to bring complex subjects to the wider public, such as the internet and travelling exhibitions. "People need references and indicators...and solutions will be the result of technology applications and human behaviour, both individual and collective," Mr Touchais concluded.

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