

**International Commission on  
Education for Sustainable  
Development Practice**

FINAL REPORT

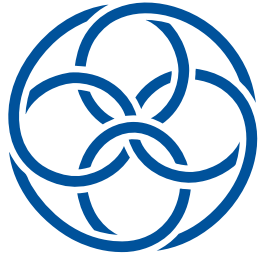
October 2008

The International Commission on Education for Sustainable Development Practice was convened in 2007 to analyze existing training and education programs for development practitioners and to make recommendations for the future. All Commission members have participated in their personal capacities.

Finding a lack of comprehensive cross-disciplinary programs to train practitioners in the full range of challenges of sustainable development, the Commission proposes a set of recommendations for a new educational system focused on sustainable development practice. Central to the Commission's recommendations is the proposed Master's in Development Practice program. With emphasis on policy and implementation, the MDP program is rooted in four main disciplines: health sciences, natural sciences and engineering, social sciences, and management.

The Commission's recommendations are designed to meet the world's rapidly growing demand for highly skilled sustainable development practitioners.

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# International Commission on Education for Sustainable Development Practice

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## Executive Summary

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The interwoven challenges of sustainable development—from extreme poverty and disease control to climate change and ecosystem vulnerability—can only be resolved by leveraging knowledge and skills from a range of disciplines. Meaningful progress requires practical, well-managed policies and programs that incorporate insights from the health sciences, natural sciences and social sciences.

Consider, for example, the many areas of core knowledge necessary to effectively address the challenge of combating chronic hunger in sub-Saharan Africa. Knowledge of agriculture is required to understand the biophysical factors contributing to the stagnation of crop yields, and the technical solutions that could quickly boost food output and provide a source of quality nutrition in rural areas. Basic knowledge of environmental science is needed to manage the agricultural land environment and to understand its interactions with climate change. In order to promote nutrition and labor productivity among farmers and to fight the parasites that contribute to under-nourishment, knowledge of health, nutrition and disease control is required. Core knowledge of engineering is required to understand the fundamental infrastructure necessary to support energy, irrigation, storage, transportation and communications systems. To ensure both farm- and macro-scale policy solutions are economically sustainable, knowledge of economics is required to design long-term strategies for overcoming the poverty trap. Political science is required to understand the social promoters and inhibitors of investing in rural areas. Knowledge of anthropology is required to ensure that priorities and innovations are relevant and manageable in local contexts. Participatory planning skills are necessary to ensure multi-stakeholder design of solutions, while at the same time management and administration skills are necessary to promote institutional development at the local and national level.

Crucially, none of these individual areas of knowledge is sufficient on its own to solve the challenge of hunger; all are necessary. The same need for multi-disciplinary problem solving arises across a range of developing-country policy challenges, such as disease control, water management, energy service delivery, and climate change adaptation and mitigation.

It remains an unresolved paradox that the parameters for policymaking in all sectors—including education, health and the environment—are often set by

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finance ministries and other powerful financial institutions that tend to have limited knowledge of the sectors whose outcomes they decide. Finance officials are typically classroom-trained in the theories of economics with insufficient background for evaluating the absolute or relative merits of a plan to control a disease, manage an ecosystem or deliver an energy service, for instance. With predominantly urban life experiences, such individuals may encounter difficulty in understanding the distinct nature of rural problems in diverse cultural, economic, social and environmental settings. Furthermore, they typically do not have much exposure to the ground-level practicalities of policy management and project implementation. Yet the consequences are of the highest order when decisions affect, and sometimes even cost, millions of lives at a time.

Few development practitioners are currently prepared to design and implement integrated solutions that would promote sustainable development. Even within development-related academic programs, individual disciplines tend to value inward-looking specialization rather than outward-looking problem solving, often discouraging practical connections across communities of expertise. Trained within the current system, professionals rarely have the background necessary to conduct effective cross-disciplinary policy management or problem solving.

The International Commission on Education for Sustainable Development Practice,<sup>1</sup> supported by the John D. and Catherine T. MacArthur Foundation and based at The Earth Institute at Columbia University, was established in early 2007 to identify the core cross-disciplinary educational needs to support problem solving in the realm of sustainable development. The Commission's work is anchored in an understanding that professionals working in the field of sustainable development—whether in inter-governmental organizations, developing-country ministries, developed-country aid agencies, non-governmental organizations or academic institutions—are not sufficiently prepared to surmount the challenges that they confront.

The Commission was launched with inspiration from *The Flexner Report* of 1910.<sup>2</sup> Just as the field of medicine suffered from inconsistent and often ineffective medical training prior to the release of that report, the practice of sustainable development suffers from the lack of comprehensive and systematic training to foster the core competencies required of an effective practitioner. By providing recommendations for the key components of a rigorous system for professional training, the present report aims to contribute to a vastly more rigorous approach to education in the field of sustainable development.

This report outlines the Commission's recommendations for building a comprehensive new system of professional education anchored in a practical, cross-disciplinary approach to continuous learning throughout the lifecycle of a sustainable development practitioner. Throughout this report, "sustainable development" is defined as "meeting the needs of the present without compromising

1 See Appendix F for biographies of Commission members.

2 Flexner A. *Medical Education in the United States and Canada*. New York, NY: Carnegie Foundation for the Advancement of Teaching; 1910. The Flexner Report presented a review of 155 medical schools across Canada and the U.S., highlighting the extensive variation in the quality and rigor of programs, and recommending key elements of a medical training program including prerequisite requirements for incoming students, bed-side "clinical" training, faculty engagement in research, and stronger state regulations for state licensure. The findings and recommendations presented in the *Flexner Report* resulted in the standardization of medical education.

3 Brundtland Commission. *Our Common Future*. London, England: Oxford University Press; 1987. The Brundtland Commission was convened by the United Nations in 1983 to address growing concern "about the accelerating deterioration of the human environment and natural resources and the consequences of that deterioration for economic and social development." It was this Commission and subsequent Report that first clearly outlined the idea of "sustainable development."

the ability of future generations to meet their own needs."<sup>3</sup> In practical terms, sustainable development entails increasing the material well-being of the poor while narrowing the proportionate gap with the rich; continuing the scope for improved material well-being of the rich; and ensuring the sustainable functioning of the Earth's ecosystems, including conservation of the Earth's biodiversity. Sustainable development is achieved through economic and social development that reflects the physical and environmental, as well as the political and cultural conditions in which human society operates.

### **ANALYSIS AND DIAGNOSIS OF THE CURRENT STATE OF SUSTAINABLE DEVELOPMENT PRACTICE**

As part of its mandate, the Commission conducted a basic diagnosis of the current state of sustainable development training and practice. Under the guidance of the Commission's six Regional Coordinators, the Commission launched a series of consultations, engaging a cross-section of practitioners from universities, government and non-government agencies, financial institutions, and other development-focused organizations in Africa, East Asia, Europe, Latin America, North America and South Asia. Consultations included interviews, regional conferences, surveys and questionnaires. Throughout the consultation process, Commissioners identified shortfalls in cross-disciplinary problem solving and the lack of systematic skill-development across a range of core competencies within both professional education programs and organizations working in sustainable development.

**Diagram 1**  
**Missing Linkages**  
**Between Fields**  
**(Four Spheres)**



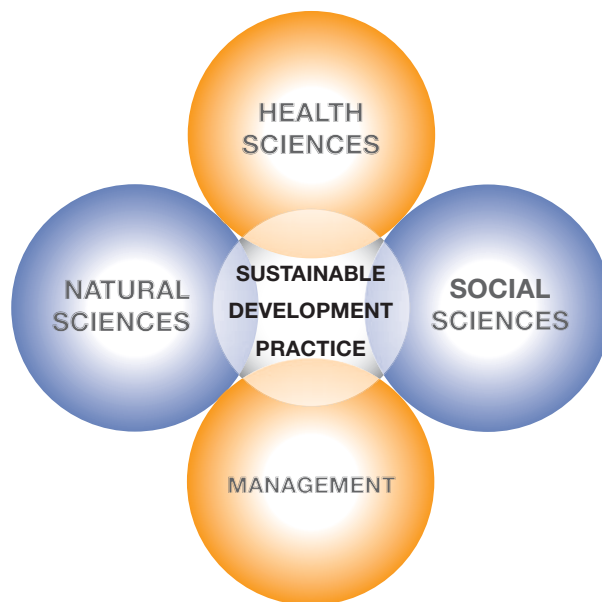
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### **Need for “Generalist” Sustainable Development Practitioners**

The lack of cross-disciplinary knowledge and skills within the field of sustainable development highlights the need for a new type of “generalist” practitioner, one who understands the complex interactions among fields and is able to coordinate and implement effectively among the insights offered by subject-specific specialists. A new cadre of such generalists would fulfill a range of roles in government (such as ministers of planning and finance), non-governmental organizations (such as regional directors and program managers), the United Nations (resident coordinators, country directors and regional directors), bilateral and multilateral financial institutions and aid organizations, grant-giving foundations and corporations, and private sector companies working in the context of developing countries. While PhDs and other advanced specialists will continue to provide significant contributions within distinct fields of knowledge, generalists are needed to navigate across the intellectual and institutional silos of specialized disciplines to develop integrated policy solutions that are scientifically, politically and contextually grounded.

**Diagram 2**

**Sustainable  
Development  
Practice at the  
intersection of the  
Four Spheres**



### **Gaps in Graduate Degree Programs**

While many universities around the world offer graduate degree programs that have a “development” label, programs typically focus on either social sciences or environmental sciences, and offer few opportunities for systematic, cross-disciplinary education or management training. Across these programs, there are no consistent standards for prerequisite training, core curriculum or program length. The acquisition of practical skills requires opportunities for reflective experimentation and “hands-on” experiences, yet too few programs stimulate learning around functional and practical knowledge, and students’ opportunities



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for course-related field work or internships remain rare. The Commission finds that while existing degree programs may offer some subset of the required skills, there are no programs that systematically provide students with the relevant skills and knowledge in health sciences, natural sciences and engineering, social sciences, and management, while developing practical skills through field-based training.

**Lack of Appropriate Training Programs for Life-long Learning**

Mirroring the lack of degree programs focused on cross-disciplinary learning, development professionals have almost no opportunities for refreshing and upgrading relevant skills throughout their careers. Executive education programs typically focus on management techniques rather than substantive training. In addition, training programs within organizations working in sustainable development generally do not provide staff and management with cross-disciplinary learning opportunities or requirements.

**RECOMMENDATIONS FOR BUILDING A NEW FIELD OF SUSTAINABLE DEVELOPMENT**

In order to succeed in the practice of sustainable development, professionals must be trained in a basic set of competencies that integrate cross-disciplinary knowledge for practical problem solving with management and leadership skills for effective implementation. With the aim of supporting future generations of professionals as well as those currently working in the sphere of sustainable development, the Commission makes the following recommendations.

**1. Establish the Core Competencies of the Sustainable Development**

**Practitioner**

In consultation with a broad range of development practitioners, the Commission has identified fundamental “core competencies”—essential knowledge, skills and attributes—required of an effective sustainable development practitioner.

**2. Launch a Global Network of Master’s in Development Practice**

**Programs**

As the flagship of the new field, the two-year Master’s in Development Practice (MDP) program would provide graduate-level students at key academic institutions around the world with the core skills and knowledge required of a generalist development practitioner.

- **Curriculum:** MDP programs would require full-time enrollment of graduate-level students for at least two full years, and would include rigorous study of cross-disciplinary topics spanning the following core disciplines:

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**Health Sciences**—nutrition, population sciences and reproductive health, basic epidemiology of infectious and non-infectious disease, health policy, health system design and management

**Natural Sciences and Engineering**—agriculture, forestry and fishery management, water management, energy, engineering, environment and climate science

**Social Sciences**—anthropology, economics, education, politics and international political economies, statistics

**Management**—project design and management, budget planning and financial management, commodities management, communication and negotiations, critical self-reflection, geographic information systems and decision making tools, institutional resource and human resource management, information management systems and design

- **Practical learning through projects, exercises and case studies:** To support and enrich the core MDP curriculum, the program would integrate a variety of teaching and learning resources including practical, experiential learning through cross-disciplinary case studies and group exercises.
- **Global Learning Resources for Sustainable Development**  
**Practice:** Shared “open-source” curricula, global courses, communication portals for students and faculty, web-based collaborative activities, and other learning resources would enhance the MDP program at universities around the world by providing curricular support as well as real-time engagement in practical, cross-institutional learning and knowledge sharing.
- **MDP Network:** A vibrant network of universities, development agencies, research institutions and affiliated organizations would participate in academic exchanges, mentorship programs and curriculum development.
- **Field Training:** Designed to build practical “on the job” skills, the MDP field training program should include two separate assignments lasting a total of six months. Field training programs will work in coordination with partner universities and local development organizations to provide a holistic “clinical” training experience.

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- **Variations on the MDP curriculum:** Apart from the core MDP curriculum, some academic institutions may choose to incorporate a regional focus, a discipline-based specialization, or complementary skill training within a specialized program of study.
  - **Program Administration:** The innovative design of the MDP program would require a supportive administrative base, a select group of students with motivation, experience and academic preparation, and a dedicated faculty able to work collaboratively to develop cross-disciplinary curricula.

### **3. Establish Ongoing Professional Development Programs for Sustainable Development**

To support multi-disciplinary and multi-functional professional learning at all stages of an individual's career, the Commission recommends the following:

- **Within the MDP network:** In collaboration with universities and organizations participating in MDP-type programs, new training programs should be developed to support ongoing professional development including condensed “mid-career” MDP programs, virtual learning, and certification programs to develop the core competencies of a sustainable development practitioner.
- **Organization-based initiatives:** Organizations tasked with responsibilities to plan or manage sustainable development interventions should require their senior staff to integrate cross-disciplinary knowledge and skills into their daily operations. New initiatives such as induction and in-service training programs would address this shortcoming, as well as competency-based criteria for promotion to senior-level positions and certification systems to ensure staff have obtained a minimal level of knowledge and skill in relevant areas.

### **4. Establish a Global MDP Secretariat**

A global MDP Secretariat would work to build educational resources and standards for the global network of programs, and support broader outreach on behalf of MDP-related initiatives. Guided by an International Advisory Board comprised of experts in the field of sustainable development, the Secretariat's key responsibilities would include:

- Coordinating the MDP Global Network of universities and partner institutions
- Managing the development of MDP curricula
- Building and supporting the Open-Source Online Resource Center
- Coordinating global courses

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- Establishing eligibility guidelines for partner MDP programs
- Stewarding relationships with donors
- Assisting academic institutions in their preparation for MDP grant proposals

## CONCLUSION

Through the course of its work, the Commission has been able to help mobilize a global network of efforts that are already providing momentum to its recommendations. There is clearly strong global demand for a cross-disciplinary education system to train the next generation of sustainable development practitioners. As this report goes to press, several universities are already preparing their own plans to launch Master's in Development Practice programs (see Appendix E). The very first group of students is scheduled to begin classes in August of 2009. And the newly formed Global MDP Secretariat is already at work to support the global MDP network and the new MDP degree programs.

The implementation of the Commission's recommendations would be a fundamental step forward for the practice of sustainable development. At the same time, the creation of new education programs alone will be insufficient in affecting long-term change. Coordinated efforts to revise and expand the ideas presented in this report will be needed to respond to the dynamic nature of sustainable development, and the evolving technologies that are empowering ever-richer forms of global communication and curriculum development. Innovative tools should continually be developed to effectively teach competencies and to measure and test competency development.

In a fragile planet that requires management of countless complex and delicate natural and social systems, future generations will require all the cross-disciplinary expertise that they can muster. By activating a vibrant network of academic institutions, development organizations, research institutions, governments and donors to engage in cross-disciplinary problem solving on an ongoing basis, the Commission's recommendations are poised to play a dynamic and constructive role in advancing the long-term sustainable development on which the world depends.