



UNESCO World Conference on Education for Sustainable Development

31 March – 2 April 2009

Bonn, Germany

in cooperation with



Deutsche UNESCO-Kommission e.V.
German Commission for UNESCO
Commission Allemande pour l'UNESCO



Proceedings



The authors are responsible for the choice and presentation of the facts contained in this document and for the opinions expressed therein, which are not necessarily those of UNESCO, the German Federal Ministry of Education or the German Commission for UNESCO and do not commit the publishers. The designations employed and the presentation of the material throughout this document do not imply the expression of any opinion whatsoever on the part of UNESCO, the German Federal Ministry of Education or the German Commission for UNESCO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The organizers of the UNESCO World Conference on Education for Sustainable Development would like to sincerely thank everyone who contributed to the Conference in Bonn and to these proceedings.

Published by

United Nations Educational, Scientific and Cultural Organization

7, place de Fontenoy
75352 Paris 07 SP
France
www.unesco.org

Federal Ministry of Education and Research (BMBF)

Hannoversche Straße 28-30
10115 Berlin
Germany
www.bmbf.de/en

German Commission for UNESCO

Colmantstraße 15
53115 Bonn
Germany
www.unesco.de/english
www.bne-portal.de/english

Layout: MediaCompany GmbH
Printed in Bonn, Germany

© **UNESCO/BMBF/German Commission
for UNESCO, 2009**

© **Pictures: German Commission for
UNESCO, Kornelia Danetzki**
BMBF, Annette Eberth, Roland K. Jahnke,
Lutz Quester, Regina Riepe, Petra Schnell,
UNESCO, Manuel Wilmanns, Sascha
Ziehe

**UNESCO World Conference
on Education for Sustainable
Development**

31 March – 2 April 2009, Bonn, Germany

Proceedings



Forewords



© UNESCO

Koïchiro Matsuura

Foreword by Koïchiro Matsuura, Director-General of UNESCO

The UNESCO World Conference on Education for Sustainable Development held in Bonn, Germany, from 31 March to 2 April 2009 has been widely acknowledged to have been a great success. Let me take the opportunity of this foreword to express once again UNESCO's gratitude to the German Government for having so generously hosted and co-organized the Bonn Conference, which marked the mid-term review point of the UN Decade of Education for Sustainable Development (DESD, 2005-2014).

The Bonn Conference attracted a rich diversity of stakeholders who came from different continents and countries and from a range of professional and institutional backgrounds to exchange their views on Education for Sustainable Development (ESD) and discuss key priorities and strategies for the second half of the DESD. The presence of some 50 Ministers and Deputy-Ministers of Education at the High-level Segment gave further evidence of the commitment of Member States to ESD, their renewed engagement with the Decade, and the expectations they place on UNESCO to champion ESD's key role of providing appropriate educational responses to address today's global challenges.

An important moment in the Conference was certainly the adoption by consensus of the Bonn Declaration in the closing plenary. Taking stock of the experience and knowledge gained in the first years of the DESD, the Bonn Declaration recognizes that "we now need to put this knowledge into action" and proceeds to identify concrete steps to be taken. These steps emphasize the relevance of the Decade to the serious challenges faced by humanity in the 21st century, from global climate change and environmental degradation to extreme poverty, food insecurity and health epidemics.

The momentum created by the Bonn Conference gives us a fresh energy and a unique opportunity to further work together in order to promote quality education that enables sustainable development to become a reality for all. I call upon everyone involved in education, at all levels and in all settings, to make ESD an integral part of their vision and practice.

A handwritten signature in black ink, appearing to read 'K. Matsuura'.

Koïchiro Matsuura
Director-General of UNESCO

Foreword by
Annette Schavan,
German Federal Minister
of Education and Research

Over 900 participants from across the world came to Bonn from 31 March to 2 April 2009 to attend the UNESCO World Conference on “Education for Sustainable Development – Moving into the Second Half of the UN Decade of Education for Sustainable Development”. The outcomes of the exchange and joint work at the Conference are most crucial for the forthcoming years of the Decade.

As the current Millennium Development report from the United Nations shows, the world economic and food crisis has slowed and even reversed the progress achieved in the fight against poverty and famine. This year, a further 90 million people are at risk of being driven into extreme poverty. With decisive political will and combined efforts, the goals can still be met by 2015, as originally planned.

This is why we need to invest more in education. Education is key to progress and development. Education must be a priority, worldwide. We need commitment to sustainability in all fields of our education system. For that reason, we need to strengthen the exchange between the States involved and make best practice examples more visible. We want to learn from one another. We want to act together.



Annette Schavan

© BMBWF

A handwritten signature in blue ink that reads "Annette Schavan". The signature is fluid and cursive.

Annette Schavan
German Federal Minister of Education
and Research



Table of Contents

Foreword by Koïchiro Matsuura, Director-General of UNESCO	4
Foreword by Annette Schavan, German Federal Minister of Education and Research	5
Table of Contents	6
Executive Summary	8
Opening Plenary Speeches	11
Welcome by Koïchiro Matsuura, Director-General of UNESCO	12
Welcome by Annette Schavan, German Federal Minister of Education and Research	16
Keynote Address by Her Majesty Queen Rania Al Abdullah of Jordan	19
Keynote Address by Graça Machel	20
Address by the Young ESD Voices from Around the World	23
High-level Segment	27
Plenary Sessions	31
Workshops	39
Workshop Synthesis	40
Workshop Cluster I: Relevance of ESD for Key Sustainable Development Challenges	
Workshop 1: Education for Water Sustainability: Where Decades Meet	45
Workshop 2: Strengthening the Educational Response to Climate Change Internationally	48
Workshop 3: Advancing Sustainable Lifestyles and Responsible Consumption through ESD	50
Workshop 4: ESD and Disaster Risk Reduction: Building Disaster-Resilient Societies	53
Workshop 5: Educating for Food Security: the Contribution of ESD	56
Workshop 6: AIDS, Health and Education for Sustainable Development	57

Workshop 7:	Mainstreaming Biodiversity into Education and Learning	59
Workshop 8:	The Economic Pillar of Sustainable Development: Educational Approaches.	60
Workshop Cluster II: Building Partnerships for ESD		63
Workshop 9:	UNESCO Biosphere Reserves as Learning Sites for Integrating Local and Global Sustainability Issues	64
Workshop 10:	The Role of the Private Sector in ESD	66
Workshop 11:	Media as Partners for ESD	68
Workshop 12:	ESD in North-South-South & South-South Partnerships and Development Cooperation	71
Workshop Cluster III: Capacity-Development for ESD		75
Workshop 13:	Global Responsibilities and Local Realities to foster ESD through Institutional Frameworks.	76
Workshop 14:	The Role of Civil Society in ESD.	78
Workshop 15:	From the Margins into the Centre: Establishing ESD in Education Plans and Curricula	79
Workshop 16:	Teacher Education to Address Sustainability	80
Workshop 17:	Monitoring and Evaluation of ESD.	82
Workshop Cluster IV: ESD and the Teaching-Learning Process.		85
Workshop 18:	EFA and ESD Dialogue: Creating Synergies and Linkages for Educating for a Sustainable World.	86
Workshop 19:	Better Schools at Pre-school, Primary and Secondary Levels through ESD	89
Workshop 20:	The Role of Higher Education and Research in ESD	91
Workshop 21:	ESD and Lifelong Learning	93
Workshop 22:	ESD and TVET – Developing Skills and Labour Force Competencies	95
Project-based Workshops		99
ESD Projects Exhibition		107
Special Events		113
Participants		115
International Advisory Group / Task Force		116
Bonn Declaration		118
CD-Rom with Conference Documents		



Executive Summary

As the United Nations Decade of Education for Sustainable Development (DESD) approached its mid-point, the “UNESCO World Conference on Education for Sustainable Development – Moving into the Second Half of the UN Decade” was held from 31 March to 2 April 2009 in Bonn, Germany. It brought together 900 participants from 147 countries, among them 49 Ministers and Deputy-Ministers. Participants included representatives of UNESCO Member States,

UN agencies, civil society organizations, education institutions, youth, and the private sector, as well as individual experts. The Conference was organized by UNESCO and the German Federal Ministry of Education and Research, in cooperation with the German Commission for UNESCO. The programme was developed in consultation with an international advisory group.

The UNESCO World Conference on Education for Sustainable Development pursued **four main objectives, which were to:**

1. Highlight the essential contribution of Education for Sustainable Development (ESD) to all of education and to achieving quality education

Why is ESD relevant?

ESD, which is relevant to all types, levels and settings of education, is an approach to teaching and learning based on the ideals and principles that underlie sustainability. Since ESD engages with such key issues as human rights, poverty reduction, sustainable livelihoods, climate change, gender equality, corporate social responsibility and protection of indigenous cultures in an integral way, it constitutes a comprehensive approach to quality education and learning. By dealing with the problems faced by humanity in a globalized world, ESD will shape the purposes and content of all education in the period ahead – ESD is, indeed, education for the future.

2. Promote international exchange on ESD

What can we learn from each other?

All sustainable development programmes, including ESD, must consider the three spheres of sustainability – environment, society and economy, with culture as an underlying dimension. As ESD addresses the local contexts of sustainability, it will take many forms around the world. The sharing of best practices and different experiences and perspectives is vital for identifying key needs and for designing viable approaches to ESD.

3. Carry out a stock-taking of DESD implementation

What have we achieved so far, what are the lessons learnt?

Four years into the Decade, it is time for UNESCO, Member States and other key stakeholders to take stock of the successes and challenges emerging from the implementation of ESD so far. The empirical results as well as the global and regional reports from the first Monitoring and Evaluation exercise – dealing with structures and contexts of work on ESD – provide insight into the developments since the launch of the Decade. On this basis, it is crucial to draw some lessons in order to strengthen and prioritise efforts and achieve greater success during the remaining years of the Decade.

4. Develop strategies for the way ahead

Where do we want to go from here?

It is important that the analysis of implementation to date and the identification of past and emerging challenges and opportunities lead to the development of new strategies for the second half of the Decade. These include, among others, the further integration of ESD in educational policies, plans and programmes; the mobilization of more resources for ESD; the establishment of effective partnerships (especially through North-South and South-South cooperation); and the inclusion of stakeholders not involved in implementing the Decade to date. Emerging sustainable

development issues and the educational responses to them were discussed in this context.

In the **Opening Session**, Graça Machel, former Minister of Education and Culture in Mozambique, set the tone for the Conference by reminding participants in her inspirational speech of the need to keep the promises made in Jomtien and Dakar regarding education for all (EFA) and sustainable human development. Her Majesty Queen Rania Al Abdullah of Jordan contributed with a video message.

Subsequent Plenary Sessions provided opportunities for all participants to be introduced to and discuss issues of central importance to the Decade. One plenary session was focused on the DESD Monitoring and Evaluation process, with a presentation of the key findings of UNESCO's draft global report on the context and structures of ESD, as well as regional perspectives. In the final plenary session, participants adopted the Bonn Declaration by consensus.

In a **High-level Segment**, 49 Ministers and Deputy-Ministers of Education as well as heads of UN agencies discussed achievements and the way ahead regarding the implementation of the DESD, and considered ESD's contribution to quality education. Ministers stressed that Education for Sustainable Development is one of the key drivers towards sustainability, the need to accelerate actions in the second half of the Decade, and the urgency of moving towards more sustainable practices.

Twenty-two workshops, coordinated by a wide range of stakeholders from civil society, governments, and UN agencies, addressed specific thematic and strategic issues with regard to ESD. They were grouped along four thematic clusters: relevance of ESD for key sustainable development challenges; building partnerships to promote ESD; capacity development for ESD; and ESD and the teaching-learning process.

Project-based workshops were held in and around Bonn, and provided participants with the opportunity to exchange views on best practices with the organizers of local ESD projects in the region and with one another. The off-site project-based workshops complemented the conference programme by providing 'hands-on' experiences of ESD.

An **ESD Projects Exhibition** at the Conference venue presented 25 concrete good practice projects selected from all over the world and representing dif-

ferent ESD approaches and stakeholders. Five projects per world region were on display.

Nine **Special Events**, organized by a broad range of institutions, took place during the Conference. Topics of special events were closely linked to the four conference objectives and had a global or regional focus.

The day before the World Conference, the workshop **Young ESD Voices from around the World** brought together 25 young people from different parts of the world who are highly committed to ESD. Workshop participants discussed ESD in their respective countries and looked at what should be the main emphases for the second half of the Decade, as well as what their joint and individual projects towards implementing the DESD in its second half should be. Workshop results were presented at the Opening Plenary of the Conference.

The **Bonn Declaration**, drafted through a transparent, inclusive and participatory approach and adopted by consensus in the closing plenary, reflects the discussions held during the Conference and provides strategic orientation for the second half of the Decade. It emphasises the importance of Education for Sustainable Development in the current world situation. It calls for making a compact with the global DESD movement aimed at improving knowledge, skills and competencies and strengthening values and attitudes oriented towards a transition to a more just, fair and viable world. In particular, in light of the present context of financial and economic crises and global challenges like climate change, it places emphasis on several key areas, which include: reinforcing the educational response to sustainable development challenges; developing and building capacities for adapting to change; sharing knowledge and experiences; and reinforcing synergies between different education and development initiatives. It calls upon Member States and UNESCO to expand their activities in ESD.



Opening Plenary Speeches

During the opening plenary, Koïchiro Matsuura, Director-General of UNESCO, and Annette Schavan, German Federal Minister of Education and Research, welcomed the participants. Keynote presentations were delivered by Her Majesty Queen Rania Al Abdullah of Jordan (via video) and Graça Machel, former Minister of Education and Culture of Mozambique. A speech was held by representatives of the Young ESD Voices.



Welcome by Koïchiro Matsuura

Director-General of UNESCO

delivered by Nicholas Burnett, Assistant Director-General for Education, UNESCO

Federal Minister of Education and Research of Germany,
Honourable President of the Standing Conference of the Ministers of Education and Culture of the German Länder,
Ms Graça Machel,
Ministers,
Heads of Delegation,
Ladies and Gentlemen,

It is a great pleasure and honour for me to open this mid-term review conference for the UN Decade of Education for Sustainable Development. I warmly thank the Government of Germany for its generosity in hosting this World Conference and providing such a splendid venue in Bonn. My particular thanks to Minister Schavan for all of her efforts to ensure the success of this important event.

We are deeply honoured by the presence of Ms Graça Machel, an outstanding woman of Africa who has stood up for the rights and needs of children everywhere. We are very much looking forward to your keynote presentation and to the distinctive perspective you bring to the themes of this conference.



Nicholas Burnett

I also look forward to the remarks of Queen Rania of Jordan who, for reasons beyond her control, is unable to join us in person this morning. I know she is greatly disappointed not to be here in Bonn, but through the video that will be shown, I am sure that her thoughts on the global picture of education will be inspiring to us all.

Let me take this opportunity to welcome all of you: namely, the over 900 participants who have come to this conference from all regions, all sectors and all constituencies of the Decade. Among you are some fifty ministers or deputy ministers of education and representatives of more than 100 countries. This is a clear sign that the theme of this conference – education for sustainable development (ESD) – is rising higher on national agendas. I am confident that, with your participation and engagement, this World Conference will be a real milestone not only within the Decade but also for the success of ESD in the longer term.

This World Conference is, of course, highly important in its own right. But it is also part of a series of major international education events that UNESCO is holding in 2008-2009 focused – beyond ESD – on inclusive education, basic education for all, adult learning, and higher education.

This conference cycle aims to encourage a dynamic and far-reaching reflection on the transformative power of education. It also seeks to engage policy-makers, researchers, practitioners and a range of institutions in re-orienting education systems – from pre-school to adult learning, in formal and non-formal settings – in ways that promote equity, innovation and sustainable development.

Excellencies, Ladies and Gentlemen,
In a world trying to come to grips with a major financial and economic crisis, with environmental degradation and climate change, with social tensions and conflict, there is growing global consensus that the international community must unite to prepare for a better common future. This consensus was anticipated by the decision of the UN General Assembly to create a Decade of Education for Sustainable Development (DESD), running from 2005 to 2014, in recognition of the critical role that education plays in development.

But it is not just any kind of education. It is about learning for change and about learning to change. In particular, it is about the content and processes of education that will help us to learn to live together sustainably. If education systems are characterized by inequality, discrimination and exclusion, they risk perpetuating or even deepening the social and economic disparities that exist. That is why ESD aims to encourage a shift towards more inclusive education systems, grounded in a respect for diversity and a recognition of interdependence – both with each other and the environment in which we live. ESD is based on the belief that everyone has the right to learn, the capacity to contribute and the commitment to ensure that others share in the benefits of development. This belief is also at the heart of the Education for All goals and indeed the entire Millennium Development agenda.

The strategies UNESCO is putting in place, as global coordinator of the EFA movement and of the DESD, are aimed at linking quality education for all with the ultimate goal of sustainable development in each and every country. Yet, this goal is under tremendous pressure. There is a widespread sense that time is running out, that key decisions are being deferred and delayed, and that public opinion remains poorly informed about what is at stake.

All of us – individuals, organizations, Governments – have difficult choices to make. ESD is a way to make those choices better informed, more attuned to the urgency of the problems we face, and more aligned with the core human values that bind us together. And let us never forget that our choices today are not just for ourselves but also for the future – in other words, for our children, our grandchildren and their descendants. In a sense, of course, we no longer have a choice. The principles, values and practices of sustainable development must find their place in children's schooling, higher education, community-based learning activities and workplace training programmes. If the aim of ESD is to provide us with the knowledge, skills and competences to address the problems that we face in the 21st century, then ESD is not an option but an imperative.

To be relevant and up-to-date, ESD must engage seriously with today's issues and challenges. Take the case of climate change, which as you know will be the subject of a major UN conference in Copenhagen in December 2009. While climate change is not the only environmental threat to the sustainability of the planet, it is a priority for policy-makers and the general public alike because it will affect all of us. Education for and about climate change is a significant aspect of ESD; and the ESD perspective – with its emphasis on the economic, the social and the cultural as well as the environmental dimensions – can be especially helpful in shaping our response. With support from the Government of Denmark, UNESCO will be organizing an international seminar on climate change education in Paris in late July. This meeting will learn from the discussions here in Bonn and will provide a valuable educational perspective for the Copenhagen conference in December.

Excellencies, Ladies and Gentlemen,
We are gathered here in Bonn to reflect on how we can move forward the ESD agenda. In this regard, it is vital that we build on the lessons of experience. The DESD Global Monitoring and Evaluation Framework was put in place to assess the implementation of the Decade. This week we are making available the latest draft of the global report on DESD implementation, which focuses on the structures and mechanisms put into place to advance all of our work on ESD at global, regional and national levels. In addition, in the lead-up to Bonn, a number of meetings took place – in Bordeaux, Gothenburg, Nairobi and Tokyo – whose outcomes will likewise feed into our discussions.

Let me highlight three of the lessons or findings that I find particularly valuable. First, there is the importance of partnership. No single body – not UNESCO, not the whole UN system – can do ESD on its own. Closely linked to the idea of sustainability is the concept of inter-dependence, which demands that we work together to overcome shared problems. We must act quickly and that means we must partner together quickly too. We sometimes talk loosely of ‘multi-stakeholder partnerships’ but ESD is one of those areas where such partnerships are essential. We know that, together, we can actually do something in and through education in order to create a safer and more sustainable world. UNESCO has always emphasized the important role civil society has to play in mobilizing enthusiasm and commitment for ESD, and appreciates the valuable contribution of the Earth Charter initiative.

Second, there is the key role of teachers and educators, who are the cornerstone of effective ESD programmes. There are over 60 million teachers in the world today and countless numbers of non-formal educators. They work at the ‘local’ level but are called upon to deal with ‘global’ issues. To make education relevant and real to learners, they must draw upon local inputs, contexts and values. Hence, we need to remember

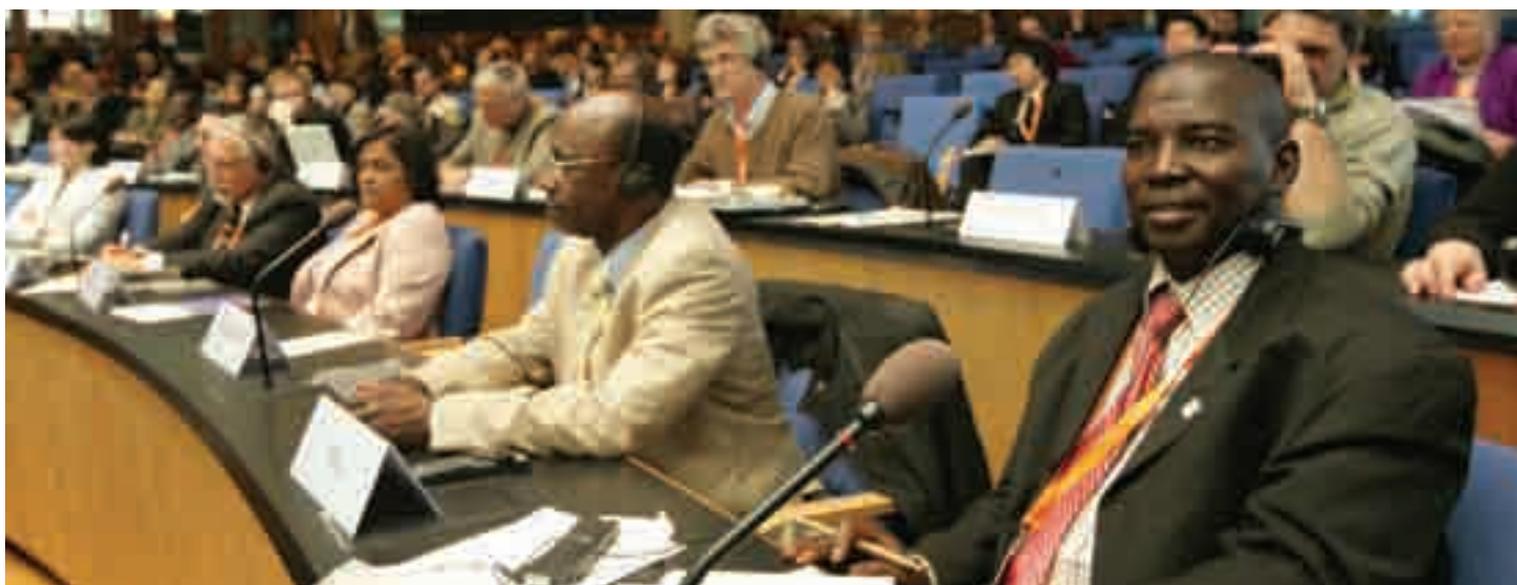
that teachers are individuals, part of educational and learning institutions, part of a community, and part of a society, and that they need to be supported in their work.

Third, it is vital to understand that the ESD approach is not limited to particular topics or even curriculum content in general, but offers a larger vision of what are the purpose and objectives of education, what is the relevance of education, what is the environment within which learning takes place, what kinds of values and principles are imparted and what types of skills, competences, behaviours and attitudes are generated. ESD has something important to say to all of these considerations, which coalesce around the question of quality.

We recognize that the ‘education’ in ESD is not just formal schooling but embraces a wide range of learning experiences and programmes. The focus on basic education and literacy in the orientation of the Decade is important. Yet ESD must also inform secondary education, technical and vocational training, and higher education, and a wide range of other modalities of learning that may be labelled as non-formal education, professional development and training.

We believe that such an inclusive approach serves as a stimulus to improving the quality of education. That is:

- an education that is relevant to the key challenges of living in the twenty-first century;
- an education that empowers people to exercise their rights while also builds a stronger sense of responsibility;
- an education that ensures that a person is educated to think critically, to solve problems, to work in teams, to be analytical, to be confident about facing situations of ambiguity and difficulty in the workplace or in their lives; and finally,
- an education that cultivates good citizenship locally, nationally and globally.



Participants at the
Opening Plenary

ESD can contribute to this quality agenda in many important ways.

Excellencies, Ladies and Gentlemen, The UN Decade on Education for Sustainable Development is a framework for partnership and collaboration, bringing together a great diversity of interests and concerns. It is an instrument of mobilization and advocacy, through which governments, international organizations, civil society, the private sector and local communities around the world can demonstrate their practical commitment to learning to live sustainably. Thus, ESD has come to be seen as a process of learning how to make decisions that consider the long-term future of the economy, ecology and the equitable development of all communities. Building the capacity for such future-oriented thinking is a key task of education.

As facilitator of this Decade, UNESCO is assisting countries and regions develop educational plans and strategies that are relevant to their different realities and concerns. But no country is an island when it comes to sustainable development. In this regard, even islands are not islands! We do live in a truly interdependent world and an educational experience that ignores or denies this cannot prepare citizens for the reality of living on this small planet.

In conclusion, I would like to stress that each of us is an agent of change and that we can individually and together contribute to creating a better world. All of us have responsibility, whether at the local, national, regional or international level, for the implementation of the Decade. But I do not wish to make this duty sound like a burden because it is quite the reverse – it is a way to express our creativity and our capacity for innovation as well as to enjoy working and living with others in common cause.

Let me once again express my gratitude to Germany for providing us with such a warm welcome and hospitality. I would also like to thank Japan for its offer to host the wrap-up meeting for the Decade in 2014. This is a very timely proposal from a country that was the prime mover behind the creation of the DESD.

It remains for me to express my hope that this conference fulfils its promise by providing a rich and rewarding experience to every participant and by convincing all of you – if you need to be convinced – that the Decade of Education for Sustainable Development is a key framework for cooperation to achieve a better, more sustainable and safer world.

Thank you.



Welcome by Annette Schavan German Federal Minister of Education and Research

Honourable Assistant
Director-General Burnett,
Dear colleagues from governments
and parliaments,
Ladies and gentlemen,

I would like to welcome you very warmly to the UNESCO World Conference on Education for Sustainable Development. Welcome to Bonn, the city which was home to the government headquarters of our country from 1949 to 1999. A particularly warm welcome to the Mayor of the city.

The German parliament used to meet in this very building in which we are currently assembled. Today, Bonn is the UN city on the Rhine: 18 UN organisations, offices and programmes are based here. The strong commitment to sustainable development links most of them. Bonn has been an unusually active city within the UN Decade, and has therefore been recognized by the German National Committee for its countless efforts and was named Official City of the UN Decade. Dear Mayor Ms Dieckmann, we feel fully at home with this conference here in Bonn and would like to thank the city for supporting the event.

Ladies and gentlemen, we will here review the UN Decade and cast a glance over the many successful education initiatives across the world. We would like to use these few days to start off the second half of the Decade – with new impulses and a new dynamic.

We are doing this at a time when everyone who bears public responsibility – whether in politics, business or associations – is deeply involved in gauging the impact of the financial crisis, which is hitting our countries and our businesses in a devastating way. Each continent is affected by the turbulence on the financial markets. This is the background



Annette Schavan

against which we are discussing sustainable development. The question of what is required for sustainability is of particular relevance today. For this crisis, for many developing countries, is linked to the danger that we will be thrown off course in achieving the Millennium Development Goals. Every percentage point in lost growth in developing countries will force around 20 million people back into poverty.

The global financial system has experienced massive turbulences, precisely because sustainability was not the top priority in economic transactions. Sustainable economies and sustainable growth were not deemed relevant, whereas short-term maximisation of profits was the watchword. The forceful impact of system failure affects us all. It will affect the weakest and the poorest most. They are paying for the juddering world economy in hard currency, as their daily existence is under threat. We are seeing the results now of freedom

without responsibility. Acting according to the principle of responsibility, is the key requirement for sustainable development. This principle of responsibility means: always act in such a way that the effects of these actions will allow human life to continue permanently. The guiding light should not be short-term profit, but sustainable prosperity, long-term availability of resources and conditions, which allow for social participation by as many people as possible across the world.

We are convinced that in this situation issues related to education for sustainable development gain crucial importance in a twofold way: Firstly, because a movement has formed which is about "prosperity for all, education for all worldwide". Access to education is the first and most important requirement for development and sustainability. Secondly, because the principle of sustainability must be part of the substance of education worldwide. At many educational institutions across the world, young people are getting to grips with ideas and actions related to sustainability. They are learning that their individual actions have global consequences. The education system and curriculum for the 21st century worldwide must be about learning about contexts and contents that make the meaning of sustainable choices and actions clear and tangible.



Only in Germany today, there are more than 800 projects recognized by the German Commission for UNESCO as Official Projects of the UN Decade. This is an expression of the diversity and creativity in education activities in our country. This impressive number makes clear that sustainable development can only succeed if civil society is involved. If you look at education in Germany, the most important players, when it comes to implementing Education for Sustainable Development, are the teachers in our schools.

At the same time the conviction is growing, in these economically difficult times, that education is very much key to individual life chances and to processes which lead to the source of future prosperity. For this reason, I would like to reiterate that the Millennium Development Goal "Education for All" should be our very first priority. The principle of responsibility is the central theme of government action, which in our country goes hand in hand with the power of civil society, who help us fulfil this basic duty. If "Education for All" manages to achieve access to education for all and quality education for all, then we can also achieve a further Millennium Development Goal, to halve the number of people living in extreme poverty by 2015.

Germany will stick to its responsibility. We will meet the European Union's plan to expend 0.51% by 2010 and 0.7% by 2015 of our Gross National Income on development. Because we know that there can only be lasting security, prosperity and peace, if we make our contribution to justice in the world. For many of us, it is becoming increasingly clear at our international meetings, how much importance education, science and research have gained in international relations. Over and beyond the work of ministers responsible for different areas, international cooperation is gaining importance, particularly when we focus on the goal of sustainable development.



We need a global governance in which economic, social and ecological development is seen to belong together. Local actions have global consequences. Nonetheless, too often we forget that this interdependence has such a immediate effects. Some public debates still suggest that the logic of economy is incompatible with the logic of ecology. Public debates and specific actions must be characterised much more by an emphasis on linkages, compatibility and new balances. The price of goods and services must include the costs to the general public, in terms of ecological balance, for example. This transparency and the efforts for sustainable economies will trigger a race in science and research. Our work on an international research agenda is focused on these very questions of new balances, new compatibility of technological developments, which will help us break with the contradictions which have been produced continuously to date.

Our responsibility to sustainable development in fact coincides with our very own interests. Climate change is an example of this. It is endangering the basic conditions of everybody's lives. Every day we feel that the earth is becoming more impatient. We must all learn to be more careful with natural resources, in the way we think about them, and to change our behaviour. Perhaps the current crisis also provides a chance to recognise that all humankind sits in the same boat, as Federal President Horst Köhler pointed out a few days ago in a speech in Berlin: "Self-interest, in the 21st Century, means looking after each other."

Investment in education means investment in the next generation and with it an investment in the source of future prosperity, future awareness and future possibilities for action. The UN Decade, which has come to a half-way point, can especially now, at these confusing times, gain dynamics and impact. All of the projects which we will discuss here show one thing: that hope will win out over fear, that the common will to shape

the future can defeat conflict. For this reason, I would like to thank all of those who have participated in these initiatives over the past years – school-children, teachers, educators and trainers, people who bear responsibility in local authorities, businesses and civil society organisations. They have all contributed to making this world a fairer place and to raise the importance of sustainability.

In the second half of the UN Decade, we must make Education for Sustainable Development more visible. Examples of good practice must be communicated across the world and must provide models for others. Education for Sustainable Development needs to find a relevant place in curricula and in the education and training of teachers.

What effect does Education for Sustainable Development have? How can we improve it further? Educational research in our countries can give impetuses and answers to politics. For that reason, during the second half of the Decade we must continue to strengthen our efforts in international networking for educational research. Our conviction that sustainability is an important impulse for development must characterise our answers to the questions of competitiveness and substance of education systems in the 21st century.

Ladies and gentlemen, after the Second World War Bonn was the city from which we started into a more peaceful world. Today, Bonn is a city of encounters and of worldwide dialogue on our common future. May that have an effect on our discussions and our exchanges over the coming days. May this city, with its many international forums for dialogue, inspire our talks to provide a new impulse for the second half of the Decade. With this in mind, I wish you the most successful of conferences, an enjoyable gathering and many new impulses.

Thank you.

Keynote Address by Her Majesty Queen Rania Al Abdullah of Jordan

delivered via a video message

I am sorry I cannot be with you. I know how important this Conference is because Education for Sustainable Development has the potential to transform our world and there are so many ways we can do that.

For me, girls and women are a large part of the solution. Exclusion, discrimination, poverty and inequality widen existing social and economic gaps and plunge our joint progress into reverse gear. There can be no sustainable development while 41 million girls are excluded from school because there is no sanitation, or water wells are not close to their villages, or schools are at dangerous distance from home. While half a billion females are illiterate, while 70% of the world's poor are women and while there is not enough effort to challenge mindsets that believe girls should not be educated, women and girls are central to building sustainable and prosperous nations. Their insights are invaluable. Their knowledge furthers solutions. Their resourcefulness saves lives.

There are just over 2000 days left in our ESD Decade. Let us make every single one of them count for girls and women everywhere.

Thank you very much.



Her Majesty Queen Rania





Graça Machel

Keynote Address by Graça Machel

Former Minister of Education and Culture in Mozambique

Minister Schavan,
Mr Burnett,
Excellencies,
Colleagues and friends,

Let me begin by thanking UNESCO and the Government of Germany for inviting me to address this Opening Session.

So here we are again. Some of us were in Jomtien in 1990 and many of us were in Dakar in 2000. At both those meetings, promises were made, messages were crafted and we went away having pledged to achieve wide-scale educational change for children. We spoke of the right of all children, young people and adults to an 'education that includes learning to know, to do, to live together and to be'. We pledged ourselves to primary education for all children.

In Jomtien, in Dakar, in multiple capitals around the world, commitment after commitment has been made in relation to educational provision – access, quality, style and content. Yet over the years those commitments remain partially unfulfilled. How many of us were there when promises were made to provide access to quality education for all the world's children, and pledges were made and recorded to provide the resources to make such access a reality? How many of us were present when the pledge was made that any resource poor country that could develop a comprehensive and costed national education plan would be provided with the financial resources to implement that plan? Yet years have gone by, myriad national education plans have been produced and myriad plans have gone under-resourced.

How can it be that in 2009 we still have tens of millions of primary school-age children across the world who are not in

school? How can it be that in 2009 we still have critical shortages of trained teachers and physical infrastructure to help achieve even the goal of primary education for all children? After all these years, why do we continue to have such marked gender inequality in educational access and outcomes for girls? Or that so many of our children who make it to or through secondary school do so without gaining the skills or knowledge to equip them for meaningful employment or richer lives?

Yes, we have made some progress in that the number of children not in primary school has dropped from over 100 million to 75 million since Dakar – but my challenge to you is that that drop in numbers is nowhere near enough in the time that has lapsed. There are still 75 million – 75 MILLION – children without access to primary education; for many millions more children the quality of the education they are given access to is blatantly inadequate and the resources to improve quality and access seem to have stagnated instead of increasing to the levels promised.

Yet here we are: 19 years after Jomtien, 9 years after Dakar and halfway through the Decade of Education for Sustainable Development. If we are to avoid meeting again in 2015 and being forced to admit to our continuing failure to fulfil our promises to our children, we need more decisive, strategic, sustained and meaningful action and we need to take that action now.

It is impossible to consider any educational agenda at present without taking into account the impacts of the crisis that has gripped world financial markets and economies. Economists, politicians, commentators: many people have their own interpretation of the causes and



Participants listening to Graça Machel

possible solutions for the market volatility and economic uncertainty that has led to the severe downturn in economies worldwide.

I am not an economist. I cannot explain these current issues in terms of economic theories. However, it seems clear to me that the reckless pursuit of profit for the sake of profit, the greed of chasing money while circumventing moral or ethical boundaries and the valuing of material resources above people have fuelled this breakdown of the world economic system. A growing moral bankruptcy has fuelled a financial bankruptcy and unless we act decisively, it is our children who will reap the whirlwind of another generation's irresponsibility.

In tackling the current global economic crisis, we have an opportunity to build a new world order, not simply tinker at the edges of a failed system or to recreate the corrupt systems that have imploded on us. And education has a crucial role to play in that restructuring. We know that education is key to individual growth as well as social, economic and political development. Yet education does not take place in a vacuum. I believe that the best education, of whatever

kind, promotes the development of strong value systems to guide the learner. Having been involved in educational agendas in Africa and internationally for many years, I have learned that we need education that empowers learner with knowledge, skills AND values.

If education does not help to bridge the huge gap between the rich and the poor, then I would have to question its end value and argue that it would not be sustainable. How sustainable can education be if it does not help us to learn to protect our environment and live in peace with nature rather than at war with our planet?

I want to see education that empowers young people to question, to develop their minds and skill sets, to make choices, to find meaningful employment and to play constructive roles in their families, their communities and their nations. I want to see education that enables young people to value other human beings, encourage them to understand the importance of equality and equity and helps them recognise the importance of collective responsibility and action. I want to see education that produces young people who will

not tolerate their peers living in abject poverty in the midst of plenty; young people who will be outraged by inequality and impatient to bring about change.

As educators, administrators, politicians and activists – individually and collectively – those of us attending this conference have the opportunity to promote education that enables us to rebuild a stronger, more sustainable, more accountable world. As an organisation, UNESCO – because of its mandate and mission – has both an opportunity and a responsibility to fulfil in this regard.

We have the knowledge, the technology and the skills available to turn this situation around. We know how to prevent discrimination against girls at school. We know what we need to do to provide education for all primary-age children. We have set targets, goals, parameters and developed countless campaigns and policies yet financial resources still lag behind these commitments and policies – and that points to a failure of political will – nationally and internationally. With political will, we can achieve our goals even with limited resources; poor countries like Malawi and Bangladesh have managed to make significant progress in areas of gender parity.

The past few months have made it clearer that the failure to meet past pledges has not been because of a lack of money. For example, globally, we have enough military hardware in existence to destroy the world several times over, yet military expenditure continues to grow. In the last quarter of 2008, Northern nations poured billions and billion of dollars into maintaining the banking system and at very short notice.

UNESCO estimates that only 7 billion dollars would be needed to assist low-income countries to meet the key educational goals set internationally. Yet resources pledged over decades are still not made available.

At a time of economic uncertainty, it is even more important that we increase our efforts to deliver these resources – and that implies shifting our own, adult value systems. We must make greater efforts to make our governments and international bodies understand that our children need more books, not more guns in their hands. We need to ensure that our national and international budgets reflect that understanding. We need also to ensure that those resources are spent developing educational opportunities that promote knowledge, skills AND values.

UNESCO has a mandate that includes support to countries in the development of education, including curriculum reform and teacher training. We need to ensure that curricula develop both the minds and characters of our children – and that teacher training produces teachers who can deliver on all three strands of a valuable education: knowledge, skills and values of equality, equity, and respect for everyone.

I would like to believe that in my home we promote values such as caring, equity, honesty, integrity and promoting the well-being of the collective, not just the individual. I want to see those values reflected in the education of not just grandchildren but of children across Africa and the rest of the world. Much of the knowledge we have gathered about HIV/AIDS, malaria, TB and other health emergencies show us that education is not a luxury, is not even simply a right. It is a potential life-saving measure. We have the opportunity to promote that life saving measure – let us make sure we use it.

I hope that when we meet again in 2015, it is because we can look our children in the eye and at ourselves in our mirrors, knowing that we have at last moved from rhetoric to significant action and fulfilled our promises of access to good quality, sustainable education to our children and each other.

Thank you.

Address by the Young ESD Voices from Around the World

One day before the official opening of the UNESCO World Conference, a workshop brought together 25 young people from across the world who are highly committed to Education for Sustainable Development (ESD). The participants, who were between 18 and 35 years of age, were selected from over 500 applications.

Workshop participants discussed Education for Sustainable Development and the implementation of the UN Decade of

Education for Sustainable Development in their respective countries and looked at what should be the main areas emphasised in the second half of the Decade, as well as what their joint and individual projects towards implementing the Decade in the future should be. Subsequently, these young ESD experts took part as regular participants in the World Conference. Two representatives of the workshop presented the results in the Opening Plenary Session.



Young ESD Voices Workshop



Speech of the Young ESD Voices

delivered by Claudia Matta and Leonardo Velásquez



I invite you to imagine we live in a world where poverty and over-consumption are minimal, a time where tolerance and respect for diversity are the norm, a time when clean technology is the primary source of energy, and a time when individuals from all walks of life are empowered to make appropriate informed decisions for today and for tomorrow.

One month ago we were 25 individuals from 25 different countries, yesterday we became a group of 25 passionate people working as a team, today we are around 1200 people sitting in this room exploring ESD, but

WHY DO WE CARE?

We care because we want to make decisions about our present and our future.

We care because we understand that the disparities of our world, ranging from extreme poverty to extreme wealth, are not favourable for peace.

We care because we recognise today's challenges are interconnected: between past and present; locally and globally. As such, they cannot be addressed by an individual or a single sector.

ESD helps us address the complexity of today's challenges. We share a vision of education as being the most powerful tool for change.

During our workshop yesterday, we identified **three** key elements for ESD; these are:

1. ESD should consist of dialogue and action that spans across sectors and disciplines. This enables the use and creation of a common language, encouraging and fostering partnerships and participation;

2. ESD needs to address a common destination while celebrating the diversity of values in individuals and groups;
3. ESD needs to link to people's personal lives in order to achieve commitment.

To facilitate this, everybody needs to be involved with a special emphasis on the role of the media and the private sector.

Since the ESD Decade began in 2005, much work has been carried out. The world has learnt that ESD can be interpreted in different ways. ESD coordinating bodies have been established at different levels. Action plans and strategies now exist where they did not before; stakeholders have been engaged such as government ministries, educators, UN agencies, and NGOs to name a few networks have been established to share 'good' practices.

All of us gathered here today have the motivation and dedication to move the second half of the Decade ahead. We have identified five key actions for going forward for everyone here today.

Action 1

We need to increase our focus on monitoring and evaluation so we can plan our efforts better in the future.

Action 2

We need to strengthen existing ESD structures and establish new ones where they do not exist.

Action 3

We need to further mainstream ESD into policy to provide systematic support for teaching and learning.



Young ESD Voices Claudia Matta and Leonardo Velásquez at the Opening Plenary

Action 4

We must research, document and share, not only 'good' practices, but also 'good' processes for supporting ESD.

Action 5

Half of the world is under 20 years old, and 90% of all these young people live in developing countries. This is a huge population that needs to be engaged in decision-making for the future.

While we stand before you, I remind you that we are the voice of 25 participants, can we please invite these 25 Voices to stand up. We invite you to engage with us during the conference, ask about our initiatives and we are ready to engage with you.

Thank you very much.



Participants: Anwar Al-Khatib (Jordan), Sally Asker (Australia), Joel Bacha (Thailand), Mabel Batong (Philippines), Constant Sotima Berate (Benin), Dina Beshara (Egypt), Magali Decloedt (Belgium), Daniel Fonseca de Andrade (Brazil), Nadia Lausannelet (Switzerland), Keamogetse Magogwe (Botswana), Melhem Mansour (Syria), Lina Mata Guido (Costa Rica), Claudia Matta (Lebanon), Yolanda Durant Mcklmon (Jamaica), Hayden Montgomerie (New Zealand), Ibrahim Mohammed Mothana (Yemen), Shankar Musafir (India), Zizile Nomafa Khumalo (South Africa), Pernilla Kristina Ottosson (Sweden), Evgeniia Postnova (Kyrgyzstan), Adriana Valenzuela (Colombia), Leonardo Velásquez (Honduras), Francesco Volpini (Italy), Clayton Zazu (Zimbabwe).





High-level Segment

49 Ministers and Deputy-Ministers from around the world and heads of UN agencies met separately on 31 March 2009 to discuss Education for Sustainable Development (ESD) and progress made in support of the United Nations Decade of Education for Sustainable Development (DESD). The nature of the meeting made it possible for Ministers to be candid, and to also raise issues and concerns among their colleagues and equals. The meeting was both lively and cordial, even though there was not necessarily agreement on every item that was discussed. The “ministerial conversation” can be summarized as addressing, in its totality, eight different areas, each of which is described in this report.

Our human destiny The willingness to focus on Education for Sustainable Development was testimony to a concern for and commitment to our shared human destiny. The Ministers acknowledged that ESD is part of their collective responsibility and that it has to engage all countries, including those that are under-resourced. They underscored that education is essential to the societal change that is called for when learning to live sustainably.

The purposes of education Fundamentally, it was agreed, that education is an institution that has several purposes, but that the development of human beings – not just any kind of human beings but thinking and caring citizens is one of high importance.

The nature of education The nature of education has shifted considerably in recent times. Countries look to education as a means for bringing about positive change and for contributing to global action. Increasingly, its reach is broadening to cover skills, values and behaviours that are essential for work and a life of dignity in the 21st century. ESD involves all levels of education, all

approaches to education and, in addition, links curriculum and pedagogy in fundamental ways. In particular, education has to help populations develop the abilities to learn throughout life.

The importance of the principles of ESD Education that is consistent with sustainable development has to inculcate the principles of ESD. To do this, there must first be an understanding of what is sustainable growth. It was agreed that equity is essential to sustainable growth. An essential outcome of applying the principles of ESD is the development of a caring, concerned and active citizenry that is committed to peace, including through the inclusion of peace education in education and training activities. In the final analysis, the Ministers reaffirmed the foundational aspects of ESD concerning responsibility and consciousness for oneself and others, moral and ethical behaviour.

Challenges in education systems Demanding that education systems reflect the principles of ESD raises a number of challenges that surfaced during the interchange among the Ministers. Existing education systems will





Nicholas Burnett and Annette Schavan at the High-level Segment

have to adapt in order to translate these ideas into reality, and this is not easy. In particular, developing countries are stretched to find the resources to introduce and sustain new approaches to education. The current economic crisis further underscores the depth and breadth of the challenges that every country (rich, formerly rich, and poor) faces.

What is needed to overcome these challenges The Ministers agreed that structures are important. They recognized that in addition to formal structures that bring authority to a movement such as the DESD, less formal structures, such as networks, also have a key role to play. Among the important roles that structures contribute is to provide a means to bring the necessary visibility to ESD and to public education so as to involve everyone. There was agreement on the need to learn from the past and emphasis was placed on better sharing

of how countries and communities have been able to transform lives. Related to this is a desire to stimulate even more thought on understanding and implementing ESD. Finally, the importance of additional financing was stressed.

How to implement Education for Sustainable Development This aspect of the Ministerial discourse resulted in the greatest number of comments and also some very spirited discussions. There was agreement among the Ministers that political will, demonstrated by strong leadership, is critical for ESD to take hold and be sustained. There was also a sense that the situation in which the world finds itself and the way forward is a shared responsibility.

The Ministers stressed that ESD is broader than environmental education, and there was a call to share widely examples of good practice. Furthermore,

and given the importance of inter-ministerial cooperation, there were requests for examples of how and when this worked well. With regard to environmental education, there was some debate as to the role that global climate change should have in the DESD but the Ministers agreed that it could not overshadow the integrated nature of ESD. In this regard, there was also animated discussion around the importance of valuing more responsible consumption.

Partnership was recognized as instrumental in moving the ESD agenda forward. Among those partners recognized were civil society, the corporate sector, teachers, and schools. As a major contribution to that common endeavour the Government of Japan graciously offered to host the end-of-Decade meeting on the DESD.

Knowledge-sharing was an important theme in the discussions around ESD implementation. In this regard, the importance of research was coupled with monitoring and with linkages more generally. The challenge of monitoring was acknowledged, but its importance was underscored nevertheless. Several different kinds of linkages were identified as very important to ESD: the linkages among the three pillars from the World Summit on Sustainable Development, with culture as an important underpinning; the linkages from national to local, and from local to global; the linkages between education and work; and the linkages among ministries.

Opportunities waiting to be seized

There already exists an enormous amount of research and knowledge that can be applied immediately to help in the implementation of ESD. The growing and fast-changing field of technology, defined broadly, provides and will continue to provide occasion for improving daily practice in support of ESD. Perhaps the greatest opportunity that the Ministers saw was that they are "all in it together" and as such there is enormous strength and the ability to "be the change that we want to be and see".

This report represents the understanding of the Conference Rapporteur, Mary Joy Pigozzi, Academy for Educational Development and UNESCO High-Level Panel for the DESD. Comments and statements should not be attributed to any single Minister present, to any country represented at the meeting, or to UNESCO.





Plenary Sessions

Four Plenary Sessions took place during the UNESCO World Conference on Education for Sustainable Development, focusing on different aspects of the United Nations Decade of Education for Sustainable Development. The Conference Rapporteur Mary Joy Pigozzi, Academy for Educational Development and UNESCO High-Level Panel for the DESD, has provided the report on the plenary sessions.

The addresses of the Conference's Plenary Sessions contained richness and breadth, the completeness of which is impossible to cover in a few pages. A total of seven speakers contributed to the depth and expanse of the importance of the concept of Education for Sustainable Development (ESD) and actions related to it. This summary notes the major themes of each of the Plenary speakers very briefly and then turns to capture the main themes that emerged from the Plenary Sessions in their entirety – from the floor as well as from the individual presentations.

Opening Plenary Session

Nicholas Burnett, on behalf of the UNESCO Director-General, Koïchiro Matsuura, gave the first welcome address in the Opening Plenary in which he emphasized the importance of ESD as a means to promote learning for long-term change, for empowering people to think critically, act on careful analysis, and, ultimately, be better citizens. He also underscored UNESCO's role, not only as the lead agency in the UN Decade of Education for Sustainable Development (DESD), but as a key player in bringing together and fostering global coherence and action of the DESD with other key education movements, namely, Education for All (EFA),

adult literacy and the UN Literacy Decade (UNLD), lifelong learning, inclusive education, and higher education. He stressed the importance of education as an opportunity for creative innovation and emphasized the value of every individual as an agent of change.

The second welcome address was given by the host of the World Conference, **Annette Schavan**, German Federal Minister of Education and Research. She stressed that the meeting had two purposes – to assess what has been achieved to date in the DESD and to inject new impulses and dynamism into the second half of the Decade. Ms Schavan grounded her comments in a global context, one in which the impact of the current global economic crisis will have an enormous impact that will affect the poor inequitably. She argued that freedom comes with responsibility, that security, prosperity and peace require justice, and that, rich or poor, "we are all in the same boat". She emphasized the value of all partners including civil society, teachers, government officials, scientists and researchers and argued strongly for global solidarity so that hope could vanquish fear.

Her Majesty Queen Rania Al Abdallah of Jordan joined the opening plenary via a videotaped message. In her



Participants at the First
Plenary Session



message, Queen Rania made two strong pleas that also resonated in several other comments during the Conference. Her Majesty stressed how little time there really is to make a difference in some of the challenges that are being tackled by the DESD and the importance of not wasting time but of taking deliberate action – immediately. Her second plea was to ensure the inclusion of girls and women, who play critical roles in sustainability and without whom the DESD cannot succeed.

Graça Machel, the former Minister of Education and Culture of Mozambique, raised the pressing issue of unmet pledges – of promises that have been made globally, but not kept. With a focus on inclusion – quality education for all – Ms Machel made a strong case for the importance of values in education as a means to change the world from the situation in which it currently finds itself. She noted the lack of ethical behaviour in the way decisions are made, emphasizing that the world’s financial bankruptcy is fuelled by moral bankruptcy. She stressed that we must conceive of education as a life-saving measure and that education has the potential to empower learners, to bridge the gap be-

tween rich and poor, to promote equality and equity, and to enable us to value rather than fear others. Ms Machel urged the Conference participants to move from rhetoric to action.

Two representatives from the “Young ESD Voices” workshop, **Claudia Matta** and **Leonardo Velasquez**, began their presentation with a vision of a sustainable world, arguing that education can be a powerful tool for change, especially as a means to engage young people in understanding their common destiny and making a commitment to improving it. Like other speakers they urged action – not any action, but action based on research and experience, action that is implemented through strong and specific ESD structures, and action that is inclusive of the growing numbers of young people.

First Plenary Session

Acting on behalf of Mr Nicholas Burnett, UNESCO Assistant Director-General for Education, **Ana Luiza Machado**, UNESCO Deputy Assistant Director-General for Education Programme Management, introduced the Conference in the first presentation of the

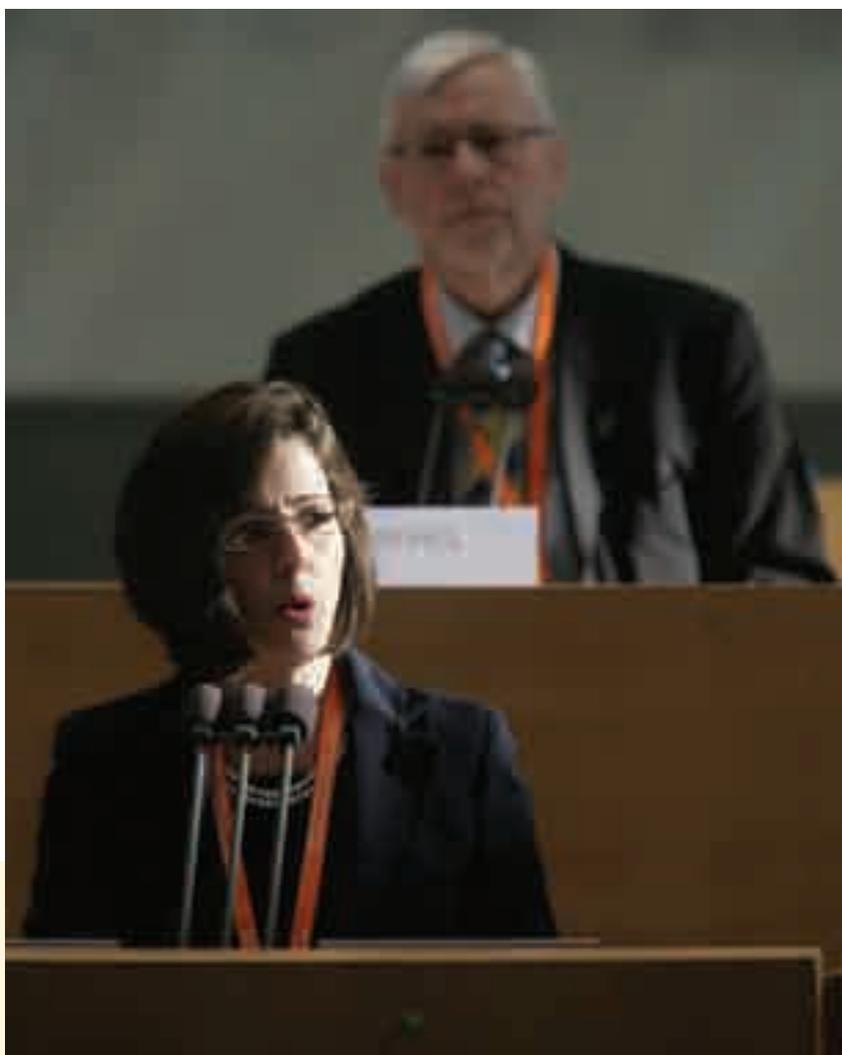
Opening Plenary. Ms Machado framed ESD within its long history and especially with regard to the Brundtland Commission. She stressed a broad vision of education, from early childhood through adulthood and across all forms of learning, as an imperative for an understanding of ESD and for success of the DESD. She made a strong argument for quality as a basis for ESD, along with a focus on an inter-disciplinary approach, attention to skills acquisition, and values in education. She also stressed the importance of setting priorities as a key element in effective action.

To set some of the substantive background for the World Conference, **Mark Richmond**, UNESCO's Director of the Division for the Coordination of United Nations Priorities in Education, summarized and reflected on the draft DESD Global Report. He recalled the importance of collecting information on structures and contexts of work on ESD. The kind of process indicators used for the first phase of the Monitoring & Evaluation (M&E) process are indeed crucial to assess the implementation of the Decade since its launch in 2005. The M&E process will continue until 2014. It will focus on ESD processes and learning during its second phase and on impacts and outcomes of the Decade during its third and last phase. Upon reflection and on the basis of the findings presented in the draft DESD Global Report, Mr Richmond argued that with regard to the DESD, "the glass is half full" – much has been accomplished, but, at the same time, one cannot be complacent as there remains much to be done.

Walter Hirche, President of the German Commission for UNESCO, presented an overview of the programme foreseen for the three Conference days. By doing so, he also explained the four objectives running through the programme. Mr Hirche described for all participants the procedure for the drafting of the Bonn Declaration as well as the composition of the drafting group.

Second Plenary Session

The Second Plenary Session addressed global progress in relation to the DESD and was chaired by Mr **Carl Lindberg**, Member of the UNESCO High-Level Panel for the DESD and the International Advisory Group for the Bonn Conference. **Daniella Tilbury**, professor at the University of Gloucestershire in the United Kingdom and Chair of the Monitoring and Evaluation Expert Group (MEEG), presented the group's work in developing and implementing a 10-year framework to monitor and assess ESD during the Decade. She described the purposes and processes related to the



Daniella Tilbury, Carl Lindberg

efforts to monitor and evaluate the DESD and gave some detail on the different tools developed to carry out the functions of the MEEG. Ms Tilbury also pointed to several limitations that had constrained the work. These include the lack of baseline data, the lack of established ESD data collection systems, very tight timelines that worked against some of the processes, limited financial backing, and challenges in engaging the participation of multiple stakeholders. A second cycle, which will build from the data collected and the lessons learned, began in April 2009.



Arjen Wals

The initial results from implementing the framework were presented by **Arjen E. J. Wals**, associate professor at Wageningen University in the Netherlands and Global Report Coordinator. Although his report addressed ten key findings, time constraints made it impossible to cover them all equally in the plenary. He noted the wide range of interpretations of ESD and the fact that it is much stronger in formal education than in other modalities. There is an increasing number of coordination bodies being established and a number of strong policy documents, but little inter-

departmental government cooperation in most countries. Although UNESCO has made strides in implementing the Decade, it is too early to speak of a concerted UN response. Public budgets and incentives in support of ESD remain minimal and there is a great need for more research and dissemination. A major strength of the Decade is the degree of international networking on ESD.

Regional perspectives were provided from the UN Economic Commission for Europe (UNECE) (**Andreas Karamanos**), and UNESCO Regional Bureaux for Education for the Arab States (**Abdel Moneim Osman**), Asia and the Pacific (**Derek Elias**), Africa (**Teeluck Bhuwanee**), and Latin America and the Caribbean (**Astrid Hollander**). All presenters emphasized the variety of contexts in the region they were describing and important strides made toward a coherent focus on ESD. Common challenges included a shared understanding of the concept of ESD, movement from policies to practical and significant actions, advocacy for funding, inter-ministerial support, and meaningful participation on the part of the full range of stakeholders. All also spoke of the



Providing regional perspectives: Hollander, Bhuwanee, Elias, Osman, Karamanos (l. to r.)

potential of ESD to contribute to developing solutions in the region, of the value of networking for information-sharing and partnership-building, and the need for better ways of developing durable capacity.

Third Plenary Session

The Third Plenary Session was devoted to reflection on the Conference in progress and to a debate on the first draft of the Bonn Declaration. It was chaired by State-Secretary **Frieder Meyer-Krahmer**, German Federal Ministry of Education and Research.

To summarize the powerful and passionate contributions from all three Plenary Sessions in this Mid-Conference Plenary was a tall order – what emerged as important, however, were themes that echoed across these presentations and the responses that they elicited from conference participants. Some of the exchanges were quite spirited and several reflected the different perspectives that individuals, organizations and countries bring to ESD. What follows is a thematic review of the three plenary sessions from the perspective of the general rapporteurs, in other words, what seemed to be of importance to the conference participants when viewed as a whole.

Often moods are as important as words, for they reflect and represent the meaning of those words. There were several strong moods that presented themselves during the conference – one, a positive outlook, remained throughout, but several others deserve mention. Among some there were times when anger and disappointment were experienced due to lack of commitments met and/or because progress on ESD has not been as fast as many had hoped. Others showed impatience – a desire to get on with the job, a desire to accelerate action. Frequently, during the conference, many were reflective, thinking about what had been accomplished, thinking

about the gravity of the issues that ESD addresses, and thinking about the amazing variety of people and approaches that care deeply about ESD. There was also a lot of joy and elation – a sense that together we can make a positive difference!

Several areas of consensus emerged during the meeting, which are very important for coherent action on the DESD. The first consensus was a view of ESD as an education that promotes a certain combination of values that, when practised, result in more sustainable lifestyles. It is an education that is about processes as well as about content; an education that is also about developing competencies.

A second consensus was the reciprocity of ESD and EFA. The two are inextricably inter-twined. ESD contributes to the quality and relevance dimensions of EFA and provides greater opportunities to include the important lifelong learning aspects in EFA.

ESD is an imperative. It is not an option, it is an obligation. This was the third consensus. ESD empowers people to make better decisions; it enables people to live together in a more just world, it is a tool for positive change in our world. Furthermore, the DESD allows an opportunity to re-craft education to shape a better world.

The Conference recognized, however, that ESD is about more than education systems. It recognized the importance of linkages, research, capacity strengthening, networks, and partnerships in moving the ESD agenda forward. Further to this, there was a desire for much greater engagement of youth, the corporate sector, the public, civil society, and higher education.

While all share the desire to accelerate action on the Decade, a key question was how to do this in a meaningful way. What should be the priorities for action? Six key areas were identified. ESD needs to be better integrated into existing and



Frieder Meyer-Krahmer
chairing the Third
Plenary Session

emerging development frameworks. There remains a need for efficient and effective structures at national level. Inter-disciplinarity continues to be an enormous challenge in many ways, including measurement of progress. Within education, there is a need to integrate ESD into all forms and levels of education and to focus more on teachers, professors, and other education professionals and leaders. Finally, a key priority must be learning from each other.

ESD is based on values of solidarity and inclusion, yet it still needs to improve its actions in terms of the inclusion of gender issues and of marginalized populations.

A fourth area of consensus was one that is both frustrating and saddening. Participants expressed deep concern about three areas where they perceive that there have been enormous failures. These are political will, financial commitments and coordination. They called for action to address broken promises, and “moral bankruptcy” – value sys-

tems that support an unsustainable world. In this regard, the admonitions from the opening speeches for fast action were reiterated loudly and clearly.

While not receiving as much attention as there four areas of consensus, it is important to mention other themes that recurred during the plenary sessions, notably media engagement, corporate partnerships, adult learning and early childhood development.

Closing Plenary Session

The Closing Plenary was devoted to the final draft of the Bonn Declaration and to the summary by the General Rapporteurs. It was chaired by **Ricardo Henriques**, former Vice-Minister of Education, Brazil. Closing remarks were delivered by **Nicholas Burnett**, UNESCO Assistant Director-General for Education, and **Kornelia Haugg**, Director for Vocational Training and Life-long Learning at the German Federal Ministry of Education and Research.



Kornelia Haugg, Ricardo
Henriques, Nicholas Burnett
(l. to r.)



Participants adopting the Bonn Declaration

The **General Rapporteurs** emphasised again that the world is currently in a very complex situation. However, they stressed that it is also a propitious time. In some ways, the worst fears are also a great opportunity for our planet. As one looks at the current situation – wars and conflicts, climatic disaster, and economic catastrophe – many who may not otherwise understand are confronted by the three pillars of sustainable development – economy, society and the environment. Their inter-connectedness could hardly be in sharper focus for the world’s leaders as well as for the poorest of the poor.

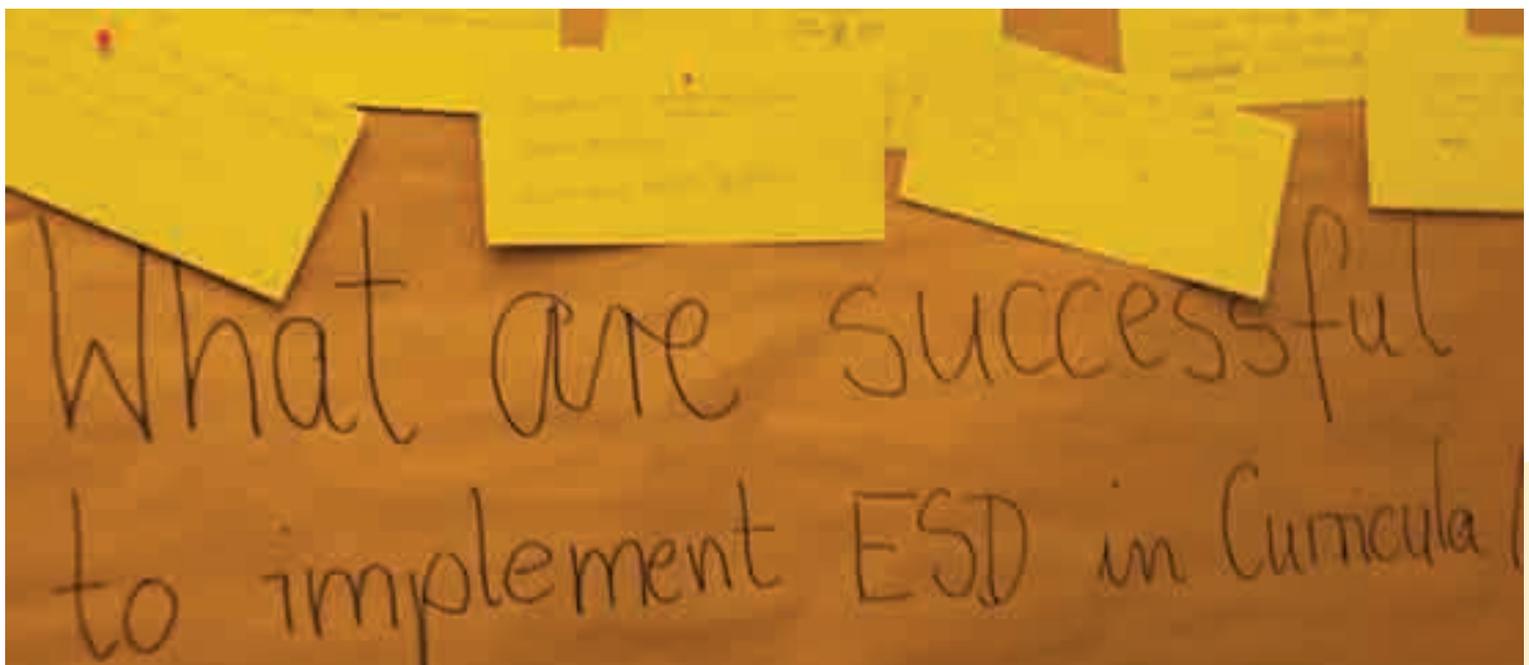
The enormous changes brought on by the industrial revolution, which, incidentally, improved the quality of lives globally, required a total re-engineering of education systems. Once again, education needs to be re-engineered. While education has many purposes, it was emphasised throughout the Conference that a reorientation of education and training systems is strongly desired so that one of the outcomes is the development of thinking and caring human

beings – citizens who understand their roles in the family, the community, the nation and the globe; citizens who work toward a peaceful, just, and sustainable world. ESD strives for this.

The General Rapporteurs underlined that by adopting the Bonn Declaration all participants are committing to a movement in education that includes knowledge, skills, competencies and values that will help all to collectively make a transition: from consumption with abandon to shared responsibility; from closed doors to openness and transparency; from inequity to equity; from bankruptcy to new thinking about economic systems; from broken promises to quality education for all; and from an unsustainable world to sustainable practices.

The **900 participants from almost 150 countries** present at the World Conference adopted the Bonn Declaration on Education for Sustainable Development by consensus in the Closing Plenary.





Workshops

During the World Conference, 22 workshops took place. They were organized in cooperation with various stakeholders from the United Nations system, civil society, academia, the private sector, and media institutions. Workshops were grouped along the following four thematic clusters:

- 1) **Relevance of Education for Sustainable Development for Key Sustainable Development Challenges;**
- 2) **Building Partnerships for Education for Sustainable Development;**
- 3) **Capacity Development for Education for Sustainable Development;**
- 4) **Education for Sustainable Development and the Teaching-Learning Process.**

All workshops addressed the four conference objectives (see pages 8-9) as well as the cross-cutting issues: Gender, Inclusion, Culture, Traditional Knowledge, Human Rights, the Millennium Development Goals, and Technology. A general summary of all workshop outcomes was provided by the Conference Rapporteur Kartikeya Sarabhai, Center for Environmental Education in India. Among other input, it is based on the reports produced by four rapporteurs in charge of the four thematic clusters. Reports of the 22 workshops have been contributed by individual workshop rapporteurs.



Workshop Synthesis

While each of the 22 workshops had specific recommendations regarding their themes, several suggestions and observations were generic and were raised by several groups. This synthesis attempts to capture these overall observations made at the workshops.

Why is Education for Sustainable Development (ESD) relevant?

Education for Sustainable Development is recognised as one of the key drivers for moving society in the direction of sustainable development. ESD connects cultures and, through that, countries. It has the capacity to bring a rights-based and global justice perspective to development issues for inclusive societies.

Information alone cannot transform people's mindsets. ESD offers a larger vision of the purpose of education, encourages interdisciplinarity and critical thinking and helps improve the quality of education. It can add the substance and content for Education for All (EFA). ESD also supports non-formal and informal learning in keeping with the understanding of education as lifelong learning. An outcome of effective ESD would be a clean and safe environment, solid economic progress that helps meet basic needs, and strong and constructive social and cultural relations directed to the full development of human potential.

ESD is relevant for everyone but especially for those actors at the top with the greatest power to change processes. ESD looks to the future, facilitates inter-generational sharing of experiences and learning, and helps learners to act responsibly as global citizens, as advocated in the principles of the Earth Charter.

What can we learn from each other?

We need to learn how to change the way of teaching from being transmissible to becoming transformative. Besides skills and knowledge, values need to be shared, as do best practices. Because ESD is interdisciplinary, a holistic ap-

proach is essential. A lot has been achieved in initiating and implementing sustainable development practices. However, these are still too fragmented and under-coordinated.

There needs to be a structured exchange of information and practices to support education and learning. National and international practices need to be adapted to local needs and traditional practices. At the same time, local practices need to be made available and adapted for wider use.

Partnerships are key to making ESD a success. A successful partnership often needs capacity to be built on the side of one or more partners, to be able to interact and fully participate in the partnership, and to both contribute and get the best out of it. For ESD, partnerships are one of the important tools for learning. Looking to the interdisciplinary nature of ESD, multi-stakeholder partnerships are required. Such partnerships also give credibility to the ESD process. The first half of the UN Decade of Education for Sustainable Development (DESD) has seen civil society play a major role as facilitator and partner to government efforts. This needs greater recognition. Moreover, the evolution of mechanisms for greater engagement of institutions outside governments is called for.

Exchange and communication between groups and individuals, especially across cultures, requires reciprocity, sensitivity to cultures and mutual respect. ESD needs to integrate knowledge and knowledge systems from a variety of sources and groups.

For ESD to be successful, it needs to be flexible and adaptive. ESD strategies and practices themselves need to be dynamic and based on a feedback and learning-to-learn model. Monitoring and Evaluation (M&E) has a central role in the process of learning to change, which is a core objective of ESD.

What have we achieved so far, what are the lessons learnt?

Several programmes that do not necessarily label themselves as Education for Sustainable Development are in fact doing excellent ESD work. Some of these projects can be understood as learning laboratories and they need to be used and recognized as such. Good examples of ESD practice exist around the globe but we do not yet have a satisfactory mechanism to access these. Some good networks have been built up to share information but these should become more active and we need to find ways for sharing to happen beyond the networks. Information and Communication Technology (ICT) has evolved to provide a useful platform for networking. However, the value of face-to-face contact must not be underestimated.

While ESD activities until now have stressed all three dimensions of sustainable development – the economic, social and environmental dimensions – the economic pillar has probably most likely been the weakest and the area that needs to be included in ESD debate much more. Technical and vocational education and training (TVET) is an important part of lifelong learning and of central importance to ESD when seeking to involve the workforce of a wide range of institutions. ESD requires institutions to redefine themselves and their role in society.

The first half of the Decade has seen examples of universities and higher education institutions becoming role models, transforming themselves and their campuses towards sustainability and reaching out to the community. Efforts to integrate ESD in school curricula and teacher education are being made. However, more resources are required to strengthen and support this. This is true for all areas of the UN Decade and Education for Sustainable Development: while there is increasing awareness and support for ESD, funding needs to be considerably stepped up to achieve the ambitious plan and needs of the Decade. A further aspect is that rural areas in particular are undergoing change, and sustainability

thinking can play a very important role in visioning and supporting this change.

Where do we want to go from here?

Good practices of Education for Sustainable Development need to be documented and made widely available. A platform for sharing experiences needs to be created as a post-Bonn online platform in order to continue the exchange that started at Bonn. Mechanisms for sharing resources are also required. The effective achievement of the objectives of ESD for the remaining part of the Decade calls for an adequate allocation of funds.

Research in ESD needs to be strengthened as it is an essential tool to create the feedback mechanism needed for a continuous learning process regarding ESD implementation. High quality research needs to be better linked to sustainability action. Indicators to measure advances and gaps in ESD at national level need to be developed.

Better coordination between Governments, academic and research institutions, NGOs, community-based organizations, women's groups and the private sector is required for successful implementation of ESD. In some cases, institutional frameworks may need to be created to achieve this. To facilitate ESD, policy and legal support is often needed. It should help to foster active citizenship to ensure effective suitable legislation. There is also a need for dialogue between stakeholders at local, national and international level for better collaborative action and synergy. ESD needs proactive engagement of the private sector with the educator community in order to drive educational processes towards sustainability.

The visibility of Education for Sustainable Development must be strengthened in various ways. To achieve this, the media must be engaged as a full and equal partner. It will not be possible to achieve the fundamental aspirations of ESD without the meaningful role of the media in the development, dissemination and communication of ESD information and content.



Various actors need to be more involved and supported within the scope of the UN Decade. The key role of teachers and educators – who are the cornerstones of ESD – needs greater recognition and support. Innovative teaching and experimentation need to be encouraged. Furthermore, programmes for people with special needs are required. In addition, as the majority of the world's population, youth must be involved much more in the design of Education for Sustainable Development. There is a need to foster leadership and develop capacity within our young people to help develop new ways of building partnership for ESD.

ESD needs to focus on programmes that lead to behavioural change, especially consumer behaviour in the case of society in general. Analysis of economic mechanisms, consumption patterns and lifestyles is required as foundation for reorienting education. ESD needs to engage with current issues such as climate change, threat to biodiversity and the food crisis. In addition programmes such as those focused on Disaster Risk Reduction need to integrate ESD into their strategies.

ESD must focus on the goal of reducing our global ecological footprint and not just promoting an education that perpetuates the causes of our economic, environmental, social and cultural challenges in daily life.

Several existing networks can be strengthened for sharing ESD ideas and practices. Conscious effort is required to ensure relevant material flows between networks. UNESCO as the lead agency for the DESD, needs to be strengthened and empowered to play its role effectively. Also other UN agencies, especially the United Nations Environment Programme, the United Nations Development Programme and the United Nations Children's Fund, have programmes through which effective partnerships can be strengthened and more synergy be created for Education for Sustainable Development. Strong political will and greater engagement of National

Commissions for UNESCO in regard to implementation of the DESD, including the facilitation of inter-ministerial cooperation, is also required. Existing frameworks and strategies at national and international levels, such as the Hyogo Framework for Action, the United Nations Framework Convention on Climate Change, the Convention of Biological Diversity and the Earth Charter, need to engage more closely with ESD. There is a need to give voice to all ESD stakeholders and reflect on what 'progress' means in ESD. M&E helps us to ascertain whether we are making a difference. This needs to be planned and reported through a multi-stakeholder process.

A Call for Action: The urgency to act was felt in all sectors. The initial years of the DESD were focused on creating awareness, in stressing the need for ESD and in initiating a number of pilot projects. These years saw the mandate of ESD being converted into programme initiatives. It witnessed new partnerships and saw innovative approaches for reaching out, and to increase effectiveness.

The second half of the Decade is seen as the time to scale up these efforts, to mobilize more people, institutions and resources for ESD, and to act in a way that leads to significant behavioural change at all levels: change in the way we produce and consume; change in the way we see equity; and change in the way we recognize these issues. It is imperative for humankind to act together in partnership in order to generate a more sustainable future.

This report was compiled by the Conference Rapporteur in charge of the Conference workshops, Kartikeya Sarabhai, Center for Environmental Education, India. Among other inputs, it is based on the reports produced by the rapporteurs in charge of the four thematic clusters: Hilligje van't Land, International Association of Universities; Overson Shumba Copperbelt University, School of Mathematics and Natural Sciences, Zambia, and UNESCO Monitoring and Evaluation Group; Konai Thaman, UNESCO Chair in Teacher Education and Culture at the University of the South Pacific, Fiji, and International Advisory Group of the World Conference; Mirian Vilela, Earth Charter International Secretariat, Brazil/Costa Rica, and UNESCO Reference Group for the UN Decade of ESD.





Workshop Cluster I

Relevance of ESD for Key Sustainable Development Challenges

Education for Sustainable Development (ESD) can contribute substantially to addressing key sustainable development challenges. Indeed, without reorienting education, successfully confronting issues like water and climate change, among many others, will not be possible. Moreover, introducing sustainable development issues into all areas of education will help to make education more relevant. Engaging students and learners in contemporary questions related to development brings education closer to life and enhances the learning experience by stimulating motivation and interest. The following workshops were part of this thematic cluster:

1. **Education for Water Sustainability: Where Decades Meet**
2. **Strengthening the Educational Response to Climate Change Internationally**
3. **Advancing Sustainable Lifestyles and Responsible Consumption through ESD**
4. **ESD and Disaster Risk Reduction: Building Disaster-Resilient Societies**
5. **Educating for Food Security: the Contribution of ESD**
6. **AIDS, Health and Education for Sustainable Development**
7. **Mainstreaming Biodiversity into Education and Learning**
8. **The Economic Pillar of Sustainable Development: Educational Approaches**



Workshop 1: Education for Water Sustainability: Where Decades Meet

Coordinators: Miguel Doria, UNESCO; Almut Nagel, German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety; Charlotte van der Schaaf, UN-Water Decade Programme on Capacity Development

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

Water is an essential and cross-cutting theme for Education for Sustainable Development, being a foundation of economy, society and the environment. Because of the global challenges, including demographic growth, climate change, hydro-hazards, urbanisation, sanitation, hygiene and food security, this theme is highly important. Moreover, there is an urgent need for highly qualified professionals in water and education.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

Presently, there is no consensus on sustainable water management paradigms worldwide. This requires specific action and indicators could be developed in order to learn from each other. Educational institutes should explore and exchange information about innovative teaching and learning methods, such as problem-based and action-oriented learning. Many efforts are made but are not yet connected and well-coordinated.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

International programmes and networks are actively working on water education, including the International Hydrological Programme (IHP), chairs and centres, the UNESCO Associated Schools Project Network (ASPnet), the UNESCO Institute for Hydrologic Educa-

tion (UNESCO-IHE), the UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training, and the University twinning networking scheme (UNITWIN). Sustainable schools and university programmes in various countries around the world have been set up to work on water education



Matthew Hare explaining group work results

and implement action programmes. Furthermore, first pilot efforts have been made to introduce MSc and PhD courses on water into university curricula. Also, sustainability training programmes for educational institutions, private companies and schools have been developed. A large number of educational materials are already available. Efforts have been made to introduce other water-related issues, such as human rights, into curricula. There is a growing forum of people interested in water education. Good networks and cooperation between NGOs, government, schools etc. in certain regions and countries do already exist. Many regional projects about water are being developed and implemented.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

As main strategies for the way forward, the participants called for urgent action by the following actors:

Governments should undertake action to provide good training of water and education professionals, to change the attitude and behaviour of all stakeholders, including students, communities and teachers, and to provide an environment in which trainers, teachers and students can learn, because learning is a long-term process, and in which teachers can teach.

International organisations should undertake action to create more exchange and knowledge platforms for water and education professionals and to develop needs assessments for capacity development, e.g. to

set priorities, and establish pilot projects and programmes to implement capacity development.

Local actors, including local governments, the private sector and local NGOs, should undertake action to enable and support active participation of local communities in defining the value of water and in teaching common values related to sustainable development.

Main Recommendations for Action

The following main recommendations for action were made for each of the four levels of education.

Community and Stakeholders

Knowledge and information as well as participatory (and other) tools should be provided and made available (free of charge) to assist communities in establishing and articulating (local) views about the value of water before making decisions about (private/public) access and allocation. This should be based on a combination of minimum needs, historical rights, and economic, environmental and cultural values. The trained support of local governments is required to enhance the application of effective participatory tools and techniques, where needed, to 'teach' water values.

School Education

Students should be made aware of the importance and value of water and how to appreciate it. Teachers should promote and demonstrate the social, economic and environmental value of water, through cross-curricular classes in development and ethics, to foster positive attitudes and behaviour of children and communities. Hands-on experimentation is needed as well as cultural understanding. Also, the gap between regional aspects and global problems should be bridged. Governments, together with other stakeholders, should work on developing databases for access to and use of existing materials. Teachers should be trained to use these existing materials. Incentives are needed to motivate teachers to put this into practice, e.g. through cooperation between governments and public enterprises.

Technical Vocational Education and Training (TVET)

Demonstration projects for integration of vocational education and training approaches in the water and sanitation sector should be set up with the support of UNESCO. Occupational competencies regarding water and sanitation should be developed and introduced for workforce qualification (especially in developing countries). Investments in infrastructure should be complemented by training of technical staff and policy-makers to maintain and manage these investments. Training and support for implementation phases of low-cost,

innovative and soft technologies are also needed. Multiple stakeholder partnerships (public-public, public-private, etc.) could be established to support this, especially in the case of pre-service, in-service and on-the-job training. Training should be designed to enable the learners to bridge the gap between theoretical aspects and practice needed in the labour market. Such training should be conducted either formally or informally and must keep pace with the aspect of life-long learning. Guidelines and databases are needed to support this effort.

Higher Education

Universities should open a window to the world and vice versa, e.g. action-research, problem-based learning and experiential learning are needed. Universities should contribute to sustainable education by raising awareness for sustainable behaviour with respect to water among future decision-makers. They should cooperate with society, and engage in teaching and research in the community and in schools. Universities themselves should take the lead in practising sustainable use of water.

Universities should develop mechanisms to ensure that teaching materials on basic knowledge and state-of-the-art water management are available. It is the responsibility of higher education to prepare and provide such state-of-the-art material free of charge. The higher education sector should develop an academically recognised peer-review process for state-of-the-art and innovative teaching materials, which should be communicated more broadly. Commitment by the higher education sector is necessary to ensure that its work influences the implementation process.

Changes in academic structures should reflect the efficacy of successful university interventions in improving best practices in communities. More emphasis should be put on effective action programmes.

There is not one single body of knowledge about the way water should be managed. Universities must take strong measures to ensure that the existing range of paradigmatic approaches is made available to the public.

Workshop rapporteur: Erick de Jong, UNESCO-IHE Institute for Water Education



Workshop 2: Strengthening the Educational Response to Climate Change Internationally

Coordinators: Laurence Pollier, United Nations Framework Convention on Climate Change; Philippe Saugier, Carboschools; Reuben Sessa, Food and Agriculture Organization of the United Nations

Overview

Ninety participants, comprised mainly of senior representatives from Government Ministries of education, environment and development, universities, intergovernmental organizations and civil society from all over the world (developed and developing countries alike) joined together to share visions, ideas and best practices in a 5-hour workshop, split over two days, which was designed to identify strategies and a practical plan of action toward scaling up the educational response to climate change.

Workshop participants stressed the urgency for large-scale investments for a transformative education, i.e. a critical values-based, integrated participatory approach which enables empowered citizens to move from learning the facts towards taking action; and this not in the margins, but in the centre of daily educational practices everywhere in the world.

Given the global urgency and political pressure of the climate change issue, the workshop participants urged UNESCO to make the development of a global strategy for Education for Sustainable Development (ESD) a priority. This was also articulated within two paragraphs of the Bonn Declaration, which was adopted at the end of the Conference:



Workshop coordinators introducing the programme

"The participants in the 2009 World ESD Conference request UNESCO, as lead agency responsible for the UN DESD [United Nations Decade of Education for Sustainable Development], to: (...)

- f) Highlight the relevance and importance of education and training in the UN Climate Change Conference (COP 15) in Copenhagen, Denmark, in December 2009 in consultation and co-operation with other partners.*
- g) Intensify efforts and initiatives to put climate change education higher on the international agenda, in the framework of the DESD, in the context of UNESCO's strategy for action on climate change, and as a component of UN-wide action."*

This workshop report demonstrates that:

- a community of international and intersectoral ESD and climate change stakeholders is committed to join forces in the planning, design and implementation of a large-scale plan of action;
- a first collection of directions and experiences can and should be further compiled to act as a foundation for planned activities.

Participants call for a thorough design and planning phase and accordingly urge UNESCO to establish an action-oriented task force and a rigorous multi-dimensional analysis methodology to drive the process, leading to a full-scale implementation during the second half of the DESD. Therefore:

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

ESD must focus on the goal of reducing our global ecological footprint (and increasing our handprint by increasing our actions for sustainable development) and not just promoting quality education that perpetuates the cause of our environmental, social, cultural and economical issues in the daily real-life context.



Workshop participants

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

The topic of climate change concerns us all. We can only solve the problem if we all work together at all levels and across all sectors. Many best practices exist; what is needed is an exchange of existing action and good practices to enhance the capacity of stakeholders in addressing the challenges in climate change education.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

Awareness of climate change is high; open questions continue to exist on how to educate people in order to move from the awareness level to a base of empowerment, engagement and action. This calls for a close connection between high-quality educational research results and processes that empowers and transforms climate change education at all educational levels.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

Workshop participants recommended the following two paragraphs for the Bonn Declaration:

1. We recognize climate change as the most serious threat to sustainable development in our time and agree to intensify efforts in our education and training systems to address this challenge by developing and implementing a 5-year Action Plan under the umbrella of ESD.
2. (We) request the Director-General of UNESCO, in consultation and cooperation with other partners, to highlight the relevance and importance of education and training in the preparation of the UN Summit on Climate Change (COP15) in Copenhagen in December 2009.

Workshop rapporteur: Pamela Puntteney, Co-Chair of the Education Caucus for the UN Commission of Sustainable Development

Workshop 3: Advancing Sustainable Lifestyles and Responsible Consumption through ESD

Coordinators: Fabienne Pierre, UNEP; Victoria Thoresen, Consumer Citizenship Network

This workshop was divided into a number of sessions which were all characterised by a series of small group discussions; sharing of experiences, lessons learned and best practices from attendees representing institutions from across the world; and questions and contributions from the floor.

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

Education, as defined in this workshop, entails actions integrated to formal and informal education but also professional training and lifelong learning as well as information and sensitisation of citizens. **Consumption**, as defined in this workshop, entails all actions that imply selecting, buying, using, caring and disposing of goods and services, and which are considered to significantly shape contemporary lifestyles, representations, attitudes and behaviours. **Lifestyles**, as defined in this workshop, entail the choices and behaviours of individuals and communities in their every-day lives. The social and environmental dimensions of such choices today bring us to consider not only its economic dimension but also its ethical and political dimensions.

Education for Sustainable Consumption (ESC), a core theme of Education for Sustainable Development, is essential to train responsible citizens and consumers in this context: individuals need to be aware of their fundamental rights and freedoms, appropriately informed to participate actively in the public debate, oriented towards a conscientious participation in the markets. Hence, ESC has become a core component of ESD and global citizenship and generates awareness of the interrelatedness of central ESD issues: "Citizens need training in how to define issues; gather, handle and apply relevant information; consult; plan courses of action; make choices; analyze and assess the consequences of their actions, and reflect upon the effect they have made locally, nationally and in a global context. This is particularly true in their role as

consumers"¹. It contributes to understanding the symbolic aspects of consumption and to recognition of the moral and civic responsibility behind sustainable lifestyles.

ESC can be seen as an integrated approach partly based on the merging of sustainable development and consumer education. Consumer education policies at national level generally aim at individual empowerment (consumer rights, household budgeting, critical thinking skills) but also at promoting public interest. However, in most cases the promotion of public interest through consumer education focuses on political dimensions of consumerism rather than on social and environmental ones. ESC, as a cross-cutting issue, could go further to combine all those aspects and become a new educational paradigm to raise education levels without creating an ever-growing demand for resources and consumer goods, to foster responsible individual and collective choices towards the environment and society. In this perspective, *Here and Now* defines ESC as follows: "Education for sustainable consumption consists of the acquisition of knowledge, attitudes and skills necessary for functioning in today's society. It is responsibility learning which aims to contribute to the individual's ability to manage his own life while also participating in the stewardship of the global society's collective life."² The objective is to empower people so that they are able to responsibly manage their social and environmental impacts, but also to participate in and stimulate the public debate about values, quality of life, responsibility and accountability.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

Despite increased awareness of the human impact on the environment and a greater focus on the consequences of individual lifestyle choices, sustainable consumption is still not always seen as a central topic in educational systems and is not identified as a priority in national education policies. In fact, many aspects of sustainable consumption and development

¹ CCN The Consumer Citizenship Network. Project Report Year 3. 2005-2006: 6

² United Nations Environment Programme / Marrakech Task Force on Education for Sustainable Consumption. Working paper: *HERE and NOW: Education for sustainable consumption. Recommendations and Guidelines*. 2008: 3

are already taught in schools, but ESC often remains sporadic or hardly visible due to a lack of cohesiveness and innovation. Yet, meeting the challenge of sustainable consumption will demand an appropriate reorientation of formal education, both in terms of institutions and curricula. Including ESC into national sustainable development strategies is an opportunity to do so at different levels: development of education policies from primary schools to high schools, adaptation of teacher training, promotion of sustainable education institutions and creation of pedagogical approaches and tools based on constant interaction between educators and other ESC actors, especially at local level. Furthermore, ESC must be built upon social, economic and cultural diversity to reach out to all urban and rural areas, developed and developing countries, wealthy and at-risk populations, as ESC consists in challenging behaviours and beliefs to reorganize our lifestyles worldwide.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

The following points were emphasised during the workshop:

- There has been greater access to scientific information exchange and assessment as the topic of ESC and the mandate of the UN Decade of Education for Sustainable Development (DESD) have gained in visibility and interest at both policy and informal education level;
- An increased awareness of the consequences of present lifestyles on the environment and society is reflected in the products available on the market – an availability made possible by the choices and demands of consumers;
- The development of life cycle approaches to products and services, by both producers and consumers, have entered both the economic and education realms rendering it easier to educate people.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

Based upon the values of sustainable development, education for sustainable production and consumption should be included as an integral part of Education for Sustainable Development and therefore lobbying for

the inclusion of ESC at all schools levels is essential in bringing about change. Education for sustainable lifestyles should include all stakeholders, with particular attention to youth and policy-makers. Education for sustainable lifestyles should be lifelong, interdisciplinary, innovative and include, among other dimensions, citizenship training as well as knowledge of systems and processes.

Strategy 1: Developing Education and Research Policies for Sustainable Consumption

→ Adapting School Programmes and Curricula

Education has a role to play in protecting individuals and giving them the means to keep making free and informed choices. In the framework of education for sustainable consumption, media literacy is therefore needed for people to be able to understand, analyze and evaluate the overwhelming amount of messages they receive every day. ESC addresses topics as diverse as life quality and lifestyles, resources, economics, consumption and the environment, consumer rights and responsibilities, health and safety and global issues (environment, poverty, human rights, etc.). In the framework of citizenship and media literacy, information management (digital and media, advertising and persuasion, labelling) is also among the important themes covered by sustainable consumption. Among other key elements, media literacy stands as a crucial pillar of ESC, a necessary condition for informed and responsible behaviours. In this regard, the *Here and Now* Guidelines presented during the workshop suggest several ESC implementation options to be adopted by education policies: 1) mainstreaming ESC as part of existing subjects/disciplines; 2) teaching ESC as a crosscutting interdisciplinary theme and/or incorporated into projects and other activities as well as in schools clubs and after school activities; 3) integrating ESC as a specific subject.³

→ Fostering Research on ESC

Comprehensive research is essential to strengthen the foundation for what is taught in ESC. It is meant to provide data on consumption patterns and their various impacts as well as on how different cultures accept or reject changes. Research can examine a diversity of approaches to sustainable consumption based on different social, economic, geographic and cultural conditions. Didactic questions are also important: how to teach sustainable consumption; the choice of topics, facts and pedagogical approaches relevant to diverse cultural contexts.

³ See *ibid.*, p. 17



Strategy 2: Providing Teachers with the Right Means through Initial and Continued Training

One of the main conditions for educational curricula and pedagogical tools on ESC to be efficiently developed and implemented is for teachers and trainers to understand its relevance in education patterns as well as in their own disciplines. They first need to be informed about what is at stake and what is the difficulty – bringing sustainability into young people's core values, translating abstract and complex issues into individuals' daily life – but also to be given well-adapted tools to develop lesson plans. Reorienting teacher education therefore stands as a strong recommendation in the *Here and Now* Guidelines presented in the workshop: "Facilitate teaching and teacher training which strengthens global, future-oriented, constructive perspectives within education for sustainable consumption."⁴

Strategy 3: Building Supportive Educational Institutions

ESC policies without relevant infrastructures and means at institutional level are unlikely to be implemented efficiently. Teachers and students need their educational institutions to adapt their own management systems to recognize sustainable consumption as a legitimate issue and to understand the actions it refers to. For educational institutions, adapting management systems takes effect through sustainable procurement, equipment, building management, public administration and services as well as participation of staff and students in school events on sustainable

consumption. In addition, integrating ESC into campus management is one of the objectives of School Agenda 21 in the framework of the Local Agenda 21 process.

Strategy 4: Developing Appropriate Pedagogical Approaches and Tools

ESC relies on the ongoing and coherent development of pedagogical approaches and tools. But ESC faces several challenges, tackled by those who develop and disseminate resources and tools. The concept of sustainable consumption itself is perceived as difficult to translate into people's daily reality; didactic resources available are fragmented, sometimes based on outdated scientific data or models not adapted to real life and students' experience; and students tend to express disillusionment, passivity and a sense of powerlessness that makes it difficult to create the motivation for them to be actors of change. Numerous resources have been developed at international, regional and national levels, including tools for setting up projects and lesson plans on ESC at school and outside the classroom. They could be adapted to different contexts and disseminated through educational networks and platforms.

Workshop rapporteurs: Fabienne Pierre, Consultant, Sustainable Consumption and Production Branch of UNEP Division of Technology, Industry and Economics; Morgan Strecker, Consultant, Sustainable Consumption and Production Branch of UNEP Division of Technology, Industry and Economics



⁴ See *ibid.*, p.7

Workshop 4: Education for Sustainable Development and Disaster Risk Reduction: Building Disaster-Resilient Societies

Coordinators: Christel Rose, United Nations International Strategy for Disaster Reduction; Badaoui Rouhban, UNESCO; Kristine Tovmasyan, UNESCO; Olivier Schick, French National Strategy for Disaster Reduction Platform

Introduction

The aim of the workshop was to stress the link and contribution of Disaster Risk Reduction Education (DRRE) to Education for Sustainable Development (ESD) by raising the audience's awareness of the mutually supportive nature of both concepts, as presented in the workshop background document. The session was divided into five parts: advocacy to policy-makers, capacity-building, formal education, non-formal education, and educational infrastructures. Each session was introduced and moderated by a facilitator, outlining key concerns and achievements as well as major challenges ahead, followed by a brainstorming discussion for each session.

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development to All of Education and to Achieving Quality Education

Why is ESD relevant?

Disasters represent major obstacles to achieving UN Millennium Development Goal 1 for poverty reduction. Reducing disaster risks and their impact has thus gradually become an important development issue in its own right. Since the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992, disaster reduction has been recognised as an integral component of sustainable development (Agenda 21, Chapter 3). The relevance of the cross-sectoral nature of disaster risk reduction to achieving essential elements of sustainable development (poverty reduction, environmental protection) was reaffirmed in 2002 on the occasion of the World Summit on Sustainable Development in Johannesburg. The linkage between disaster risk education and sustainable development has also become more and more visible on other international agendas.⁵

The Hyogo Framework for Action's (2005-2015) Thematic Area 3 focuses on strengthening networks and promoting dialogue and cooperation among disaster experts, technical and scientific specialists, planners and other stakeholders to build an overall culture of safety and resilience through knowledge sharing and education. In particular, it promotes the integration of disaster risk reduction into formal, non-formal, informal education and training activities. In 2005, the then United Nations Secretary-General, Kofi Annan, emphasised: "Our biggest challenge in this new century is to take an idea that sounds abstract – sustainable development – and turn it into reality for all the world's people". To turn sustainable development into reality, education is an important process which can produce young professionals who can provide important tools and methodologies to supply expertise. For the enhancement of sustainable development, disaster risk reduction must become an integral part of education.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

It was agreed that **advocacy and education** should focus on vulnerability reduction and how to build the resilience of communities and nations to disasters, focus on a specific local context and be locally internalised so as to achieve a long-term and sustainable culture of safety worldwide. The positive aspects of risks should also be taken into consideration whilst a cost-benefit analysis of DRRE and its impact should be developed. Advocacy should target appropriate agents for change, depending on actual needs and demands, and should have specific entry points, such as climate change processes to reach higher political commitment for disaster risk reduction. The major role played by the media in the area of education, information and experience-sharing was also strongly reaffirmed.

⁵ WCESD Concept Note: Learning to live with risk- disaster risk reduction to encourage education for sustainable development, March 2009.

Capacity-building should assess the existing capacities, building on context-specific local knowledge and wisdom. It should contain practical examples and share experiences linked to disaster risk reduction implementation. There are specific means to enhance capacity-building programmes. While it is important to focus on a single coherent capacity-building strategy, context-specific approaches are also required. Thus, capacity-building needs a balanced mix of global and regional initiatives, as well as locally customised and blended learning programmes.

The session on **formal education** was introduced as an expanded notion of access to quality education for all. A three-tiered model of basic life skills and quality education was presented.

- Formal education, an ideal of the universal provision of education based on life skills for all children and audiences, as called for in international commitments. Quality interventions at this level are structured;
- Other curricula-based interventions are possible and are offered outside the formal school curricula;
- Interventions based on life skills depend on addressing the specific aspect of competing risks or the need for a target population.

The **non-formal education** section began with examples of vulnerability, development and the gap between knowledge and practice. Three key issues were pointed out as the core reasons for existing gaps in the sustainable development process. Firstly, the cause and effect relationship between disasters and development has been ignored. Secondly, disasters are usually seen in the context of emergency response, and thirdly, the concept of sustainable development seems to be overlooking the aspect of "Safety".

Finally, the **educational infrastructure** session highlighted the urgent need to ensure that all education community centres, schools, universities and all training and learning establishments offer a safe environment through proper school safety initiatives, should we wish to meet the objective of UNESCO's Education for All initiative of bringing all children to school by 2015. Experience of past disasters has shown that the resources spent on teaching students are squandered the day after a disaster, when all efforts are concentrated on finding the children under the collapsed infrastructures and piles of rubble. This destroys all sustainability efforts that were aimed at, in addition to wiping out the next generation of educated experts

who would have been the pillars of Disaster Risk Reduction and Sustainable Development.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

The Hyogo Framework for Action, adopted by 186 United Nations Member States, emphasizes education and public awareness as key priorities for action to achieve effective disaster risk reduction. Global and regional task forces have been set up and a UN thematic platform on knowledge and education led by UN focal points (UNICEF, UNESCO, UN ISDR) bringing together a wide range of partners, including governments, civil society and academic institutions, have taken pro-active roles in promoting the recognition of risk reduction education as a top priority of national education agendas. High level advocacy initiatives, policy guidelines as well as specific tools and methodologies including a Golden Library on Disaster Risk Education Materials have been developed to guide education policy-makers in integrating disaster risk reduction into the national education agenda, school curricula and higher education, and in implementing school safety initiatives.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

In conclusion, the workshop participants agreed that "Disaster Risk Reduction Education is one of the pillars for achieving ESD and should be considered as a priority area for action to implement the second half of the UN Decade of Education for Sustainable Development". To achieve this goal, and to enhance the synergy between ESD and DRR education activities, policy advocacy, capacity-building, formal and non-formal education (including school as well as higher education in DRR), and safe educational infrastructures should represent key elements and entry points. In particular, specific emphasis should be given to localization and customization, respecting cultural aspects, traditional knowledge and wisdom. The visualisation and links to everyday life can be effective tools for Disaster Risk Reduction (DRR) Education and ESD. The collaborative action programme of DRR and ESD should be included in the mid-term review of the HFA, followed by targeted outcomes by the end of ESD and the Hyogo Framework of Action. It was proposed that "Zero mortality of school children by preventable disasters by 2015" should be included in the ESD target.

Partnership-based local projects and their proper evaluation also need to be re-emphasised, and finally, DRR in ESD needs to have institutional and judicial arguments. To enhance the institutional base of DRR-ESD linkages, it is urged that the respective educational ministries and focal agencies should undertake and implement the Hyogo Framework for Action (Priority 3) as a key policy tool and one of the national education agenda's key priorities.

Finally, there is a clear understanding that there is no competition between agencies, concepts, ideas or between DRR and ESD. Both concepts are mutually supportive and collaboration of efforts between all shall allow to reach their respective objectives. After all, we are all striving to build a **sustainable** and **resilient** community in which we all can live with equal opportunities for survival. We all have the right to be aware of the risk we live in, thus Disaster Risk Reduction Education is a vital priority in the overall ESD context.

Workshop rapporteur: Rajib Shaw, Kyoto University, Japan



Desmond Fillis, Secretary-General of the South African Commission for UNESCO



Workshop 5: Educating for Food Security – the Contribution of ESD

Coordinators: Lavinia Gasperini, Food and Agriculture Organization of the United Nations; Benedikt Haerlin, Foundation on Future Farming

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

Education, and specifically Education for Rural People (ERP), is essential for reducing poverty and hunger, improving living conditions of rural people, enhancing agriculture and building a sustainable and food-secure world. In particular, education is important for populations in rural areas, as four out of five children that do not have access to school live in rural areas. Education for Rural People is an essential part of Education for Sustainable Development and Education for All (EFA). Research has shown that there is a direct correlation between ERP and food security. ESD thus needs to offer educational opportunities for rural populations.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

People – not institutions or technology – are the driving force of development. Education for Rural People is the neglected key to food security and to achieving the Millennium Development Goals (MDGs). Food security is a key element for ensuring a sustainable world, and for our own survival. This requires enhancing Education for Rural People. ERP offers opportunities for partnerships and important exchange between Governments, the private sector, farmers' associations, producers' groups, civil society and academics in order to promote sustainable rural development.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

Education for Rural People is a key component for sustainable development. The 2005 Education for All High-Level Group meeting in Beijing identified ERP as one of the 3 priority areas for promoting and advancing EFA. The positive impact of Education for Rural



Benedikt Haerlin
explaining
the work plan

People on food security and on achieving universal primary education (MDG 2) has been recognized, showing that the correlation between food security and primary education for rural people is very high.

The education expert groups of the G8 also identified Education for Rural People as a key element for addressing the various crises our world is facing, as well as for promoting sustainable development. The key lessons learnt are the importance of intersectoral and interdisciplinary work and of political will to tackle the educational needs of rural populations. These populations are those that play a central role in ensuring the world's food security.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

The ongoing financial and economic crisis could draw even more people into hunger and poverty. The structural problems of hunger, undernourishment, illiteracy, lack of access to land, credit and employment, combined with high food prices remain a dire reality. Thus international actions aiming at contributing to eradicating extreme poverty and hunger, and promoting sustainable development by increasing access to quality education need to be reinforced. There is in particular a need to develop a strong positive empowerment programme to promote Education for Rural People as a key component of ESD. This programme should not just focus on formal education, but also focus on non-formal and informal education, taking into account all those who live in rural areas. This educational programme needs to focus on basic skills, as well as skills for work and for food security.

Workshop rapporteur: Pascal Valentin Houénou, Université d'Abobo-Adjamé, Côte d'Ivoire

Workshop 6: AIDS, Health and ESD

Coordinators: Donald Bundy, World Bank; Chris Castle, UNESCO

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

There was common agreement among the workshop participants – 29 participants from 22 countries in four world regions – that sustainable development cannot be achieved while the health needs of millions of people around the world remain unmet. On the basis of the Expanded Commentary on the Dakar Framework for Action and the discussions held during the conference, it is possible to describe three ways in which health relates to Education for Sustainable Development. First, health can be considered as an input and condition necessary for learning and working, as demonstrated by the numerous studies and clear data on the impact of illness on cognitive abilities and working performances, with a potential spiral of causes and effects between health and ESD which subsequently increases the vulnerability of societies. Secondly, health can be seen as an outcome of effective quality Education for Sustainable Development: a clean and safe environment, solid economic performances that allow basic needs to be met, strong and constructive social and cultural relations represent all together a veritable “social vaccine”. Thirdly, health should be considered as a sector that must collaborate with Education for Sustainable Development in promoting an inclusive approach across fields of specialisation, encouraging comprehensive and lifelong learning processes directed to the full development of human potential.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

Common challenges were the basis for a dialogue among the workshop participants, who focused on the main obstacles and difficulties as well as mutual understanding in ESD and health, and on the exchange of practices and potential solutions. The discussion raised a number of important issues, which were later analysed in order to establish a shared set of priorities and objectives. Participants inter alia discussed the relations and reciprocal influences between transfer of

knowledge, empowerment and changes in attitudes in the field of health and ESD, especially within the framework of formal education. Moreover, participants debated the challenges of prevention education and the confrontation with potential social and cultural obstacles like gender inequality, national and local power dynamics, generational gaps, language and cultural and religious beliefs, with particular attention to understanding and challenging the social stigma of HIV and AIDS. Finally, workshop participants discussed the impact of poverty, conflict and corruption on the development and implementation of effective strategies in promoting health and ESD, and the difficulties of reaching isolated or remote populations.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

Answering the challenges and questions raised in the first part of the workshop, participants agreed that global progress has nevertheless been made in several fields, with the main achievements being the result of both the specific lessons learnt and a strong and influential political will. Among the positive and constructive experiences shared was the effectiveness of an inclusive approach across sectors, linking the governmental efforts in the field of health and education with the initiatives led by different ministries and departments, as well as civil society actors, and international partners, in the ESD fields of environment, economy, society and culture. In particular, it was not



Workshop coordinators moderating participants' interventions

ed that free education should also be supported by targeted assistance for the most vulnerable children to meet their basic needs and avoid drop-out effects while the inclusion of health and ESD subjects in the curricula of primary, secondary and tertiary level education can guarantee that school enrolment becomes a determinant variable reducing the exposure of children to HIV and AIDS and other diseases.

Moreover, participants underlined the relevance and complementarity of non-formal education processes and mass media participation, with specific examples ranging from the use of community radio to raising awareness about health and nutrition issues, to traditional theatre performances as a tool to discuss, demystify and overcome the social stigma of HIV and AIDS.

Finally, the relevance of value-driven examples and role models as important support for ESD and health policies was reflected in the cooperation between the health and education sectors and cultural and religious leaders in prevention education; the establishment of community health centres also giving space to traditional knowledge and medicine; the recognition and valorisation of voluntary efforts at grassroots level.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

When defining **strategies** to tackle the challenges of HIV and AIDS and health within the framework of Education for Sustainable Development, priority was given to the following four key issues:

1. The importance of addressing the assets and resistance deriving from the diversity of cultural attitudes and beliefs, considering in particular the processes of stigmatisation and the function of cultures and religions in the definition of gender roles and power dynamics;
2. The need to encourage the complementary use of non-formal education in raising awareness and enhance prevention education, promoting a community learning approach and underlining the potential effect of mass media in health education through ESD;
3. The reciprocal advantages of inclusive partnerships and cooperation between different sectors of the Government and with different civil society actors, both at national and international level;
4. The importance of ensuring appropriate and continuous leadership and stimulating political will at all levels of society.

Five **specific objectives** for the second part of the Decade were then defined as follows:

1. To position health education, including HIV and AIDS, higher on the agenda of sustainable development and ESD, stimulating partnerships and exchanges at national and international level to tackle the complexity of the issue. To stimulate at the same time a multi-sectoral approach, encouraging and supporting the role and work of international institutions, civil society organisations and the private sector in this field. The creation of permanent structures facilitating this process should be encouraged at national and regional level;
2. To acknowledge and promote the positive role of culture, using traditional, scientific and religious knowledge, beliefs and practices as vehicles of change in continuity and Education for Sustainable Development and health, building value-driven role models open to cultural diversity at local, national and international level (with a particular role for the UN). There should be a specific focus on young people and gender equality;
3. To adapt the messages and tools for the promotion of health education and ESD to diverse contexts and target groups, maximizing the use of formal, non-formal and informal channels of education and therefore ensuring the pertinence and quality of education. The use of both traditional and modern forms of communication – from theatre and music to radio, mobile phones, television and internet providers – should be encouraged in order to raise awareness, stimulate critical access to and use of information and run prevention education campaigns and activities;
4. To focus on building the capacity of politically and technically responsible persons to monitor, evaluate and influence ESD and health education programmes and projects, with particular attention being paid to young people, community ownership and leadership as a guarantee of long-term commitment and sustainability;
5. To invite the media to play a more active role in ESD and health education activities, recognising and emphasising their important function and building common ownership of and engagement for the success of the programmes and projects.

Workshop rapporteur: Francesco Volpini, Co-ordinating Committee for International Voluntary Service

Workshop 7: Mainstreaming Biodiversity into Education and Learning

Coordinators: David Ainsworth, Convention on Biological Diversity; Ana Persic, UNESCO

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

Education for Sustainable Development recognises the importance of integrating knowledge and knowledge systems from a variety of sources and groups (i.e. traditional and local knowledge, scientific knowledge). Understanding ecosystem processes and the role of biodiversity requires systemic thinking, which encourages and supports this process of integration. Moreover, managing natural resources requires a social learning process, which could be one approach towards reforming traditional education towards inquiry-based systems, thereby ensuring quality education.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

Biodiversity (especially ecosystems) illustrates global interdependences, the consideration of which is vital to ESD. Secondly, the success of ESD depends on the structural involvement of all relevant actors and extending cooperation beyond the (formal) education sector. The use of already existing internationally connected networks of knowledge, practice and research and the promotion of the biodiversity-ESD nexus in a comprehensive concept is important. It is also essential to involve all levels of government. Examples of this approach are eco-schools, UNESCO's Associated Schools Project Network, non-formal and adult learning networks (Centre of Adult Education), professional training, Biosphere Reserves, UNESCO Chairs, UN University research areas, the International Council for Local Environmental Initiatives et al. National policy debates and existing mechanisms should be used to link the desired learning and education goals.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

The UN Decade of Education for Sustainable Development (DESD) has benefited from a reinvigorated global debate on climate change and biodiversity loss. More environmental education is required in formal and informal education, with a better focus on biodiversity in a more holistic way, involving links to ethical, social, cultural and economic aspects. It is also important to raise awareness of the importance of the work of civil society in biodiversity conservation, sustainable use and education. In this respect, efforts are beginning to be made to link formal and informal education in the ESD context. In fact, a variety of activities have been implemented at all levels – from local to international. However, some feel that the favourable momentum of the Decade has not been sufficiently harnessed.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

One aim would be to mainstream the opportunities offered by ESD into the work programmes of different international organs, Government departments, private sector, NGOs, taking advantage of other events and processes such as the International Year of Biodiversity in 2010 and the Conferences of the Parties (CoPs) of those Multilateral Environmental Agreements dealing with biodiversity. We should try to improve the connection to UNESCO's conventions dealing with cultural diversity, the Man and the Biosphere programme and Biosphere Reserves. Furthermore, additional efforts should be made to strengthen learning in informal contexts that links biodiversity to sustainable development. This should include communities' intergenerational settings, local authorities, cultural and religious contexts. There is a need to broaden the concept of training to a range of modalities of professional updating (e.g. e-courses, professional dialogue, on-the-job learning, citizens' dialogues etc.).

Workshop rapporteur: Kiran Chhokar, Center of Environmental Education, India

Workshop 8: The Economic Pillar of Sustainable Development: Educational Approaches

**Coordinators: Manzoor Ahmed, Institute of Educational Development, BRAC University;
Gisele Mankamte Yitamben, Association pour le Soutien et l'Appui à la Femme Entrepreneur**

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

The global economic crisis creates an important Education for Sustainable Development learning opportunity regarding the economic pillar of sustainable development. The crisis and our response to it suggest that the economic pillar is the least developed and the least taught. Moreover, participants underlined that the extent of global poverty, and the feminization of poverty makes the situation very urgent. A workshop participant suggested that “ESD is an antidote to the causes of the crisis.”

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

Over 60 participants from 41 countries participated in small group discussions on this question. Participants reported many anecdotal cases of ESD in regard to economic initiatives in the various countries, although few examples demonstrated success in making economies more sustainable. It was suggested by some that systematic analysis and case studies of experiences would indicate how and under what conditions ESD could contribute to sustainable economies. Many examples from different countries were presented, including those illustrating the interaction between economic development and formal, non-formal and informal ESD but in general, it was agreed by participants that “the premises and assumption underlying these efforts and how they operated need to be examined further and that it was too early to look for models of success or to measure results.”

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

Workshop participants emphasised that ESD must be dynamic and based on scientific awareness. Moreover, it was highlighted that communities and families must



be involved. It was agreed that economic growth must be distinguished from economic development, of which human development is a critical component. Discussions clearly showed that there is a need for ESD indicators and better use of sustainable development indicators. Finally, participants concluded that economic aspects must be better conceptualized in Education for Sustainable Development.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

Workshop participants underlined that it is essential to transform the educational system in order to transform economic systems toward sustainability. Concomitantly, transforming the economic system will require transforming the educational system.

It was emphasised that we must transform value systems towards social justice and away from individual (over-)consumption. Participants stated that values for a new sustainable economy – a culture of sustainability – are needed. This has implications for all types of Education for Sustainable Development:

- Formal Education for Sustainable Development (Ministries of Education)
- Non-formal Education for Sustainable Development (businesses and companies)
- Informal Education for Sustainable Development (e.g. the media)

It will also involve knowledge networks, technology for sustainable development, and lifelong learning.

Participants underlined that more dialogue between the ESD community and key economic stakeholders was needed, particularly in business and government, as well as with business educators, economists, and relevant NGOs. Education must not simply serve the (old) economy; ESD must help transform it with new knowledge, skills and values.

A Recommendation for UNESCO

The current global economic crisis has brought into question many of the past economic practices and associated culture and values. There is also a stronger political will to address global change. This combination offers a powerful opportunity for UNESCO, as the

lead agency for the UN Decade of Education for Sustainable Development, to be a stronger voice of the ESD community and to promote both economic and educational transformation that will enhance sustainable development.

This will entail creating the knowledge, skills, and values appropriate to a sustainability economy by increasing public awareness and understanding. It will also entail transforming education as learning systems, including formal education, training, professional development, non-formal and informal learning – placing all of these within a framework of lifelong learning.

Workshop rapporteur: Peter Blaze Corcoran, Florida Gulf Coast University, USA





Workshop Cluster II

Building Partnerships for ESD

With sustainable development relating to all areas of society, reorienting education towards sustainable development must be a multi-stakeholder endeavour. Learning for sustainable development takes place not only in education institutions but also in many other sectors of society as well. Education stakeholders therefore need to reach out to other important actors and build strong partnerships. Because sustainable development is a global challenge, international partnerships and the integration of the local and the global are decisive elements for Education for Sustainable Development (ESD) as well. How strong partnerships for ESD can be built was addressed in the following workshops:

9. **UNESCO Biosphere Reserves as Learning Sites for Integrating Local and Global Sustainability Issues**
10. **The Role of the Private Sector in Education Sustainable Development**
11. **Media as Partners for ESD**
12. **ESD in North-South-South & South-South Partnerships and Development Cooperation**



Workshop 9: UNESCO Biosphere Reserves as Learning Sites for Integrating Local and Global Sustainability Issues

Coordinator: Natarajan Ishwaran, UNESCO

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

Biosphere Reserves and partnerships between them – nationally, regionally, between continents and with outside partners – offer a unique contribution to the UN Decade of Education for Sustainable Development (DESD), as they provide a multi-level framework for mutual learning. Since the visions and goals of all Biosphere Reserves have a common basis in the UNESCO Man and the Biosphere programme (MAB) addressing sustainable development, they serve as a platform for easily establishing international cooperation and exchange of experience. They thus provide a platform of mutual intercultural learning for sustainable development.



Workshop coordinator Natarajan Ishwaran gathering results

Unique problems need unique solutions, with all general concepts needing local realisation and implementation. Through multidisciplinary approaches, Biosphere Reserves address the entire system of “Man and the Biosphere” including human behaviour patterns, instead of only symptoms, and thus provide effective solutions. Biosphere Reserves offer a key mechanism to combine the approaches and results of scientific research, and of traditional and local knowledge. Through the valuation of their knowledge, the communities are empowered, and they take on an active role in the sustainable development process.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

International Biosphere Reserve partnerships demonstrate that many Reserves face the same challenges, both in developing and in developed countries. As lessons from concrete partnerships show, issues of common concern need to be worked on together and people need to meet in person to build trust. Partnerships lead to the understanding of the local level of being embedded in a larger picture. Global partnerships also lead to greater solidarity, as a social basis of sustainable development.

Learning in terms of Education for Sustainable Development, as opposed to lecturing, is always mutual and continuous. All partners in a learning process learn from each other (e.g. scientific researchers and local communities, both bottom-up and top-down). Learning this way is based on mutual communication and on jointly defining the research questions and learning objectives. It is advisable to support communities in defining their own sustainable development options, for the sake of better acceptance. Research and learning processes in Biosphere Reserves deal with very complex issues and require systemic approaches, while at the same time requiring strategies for reducing complexity.

Many international examples demonstrate Biosphere Reserves as learning platforms for ESD programmes (formal and informal), as research topics or study

sites. Examples also showed Biosphere Reserves' great potential as learning regions by themselves (institutional, organisational etc). Appropriate problem solutions and responses to challenges are shared not only between policy-makers, scientists and managers of Biosphere Reserves, but also between the respective local communities. As "collaborative learning platforms" they serve not only for the exchange of knowledge and content, but also for approaches and methodologies.

International cooperation between Biosphere Reserves can also serve for a discussion of new/alternative values and ethics of addressing sustainable development options, such as "sustainable shrinking".

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

Partnerships are the basis for learning – it is the core mission of Biosphere Reserves to establish and strengthen partnerships for sustainable development projects and strategies. Partnerships in the World Network of Biosphere Reserves exist on different levels – locally with the education sector and among all local stakeholders (as platforms for learning); globally between partner Biosphere Reserves.

Biosphere Reserves have long-standing experiences for informal learning on different levels. The cooperation with the formal education sector can however be improved: there is a need for the formal education system to better understand the potential of Biosphere Reserves for developing locally-based and hands-on competences and skills.

Biosphere Reserves have made great achievements and have gathered many experiences as a basis for external ESD activities, own ESD projects as well as learning sites in the most comprehensive sense. However, these accomplishments and experiences have hardly been documented internationally. There is an urgent need, both within the World Network of Biosphere Reserves and for the DESD as a whole, for making best practices and lessons learnt better visible and available in a systematic way. Therefore, better mechanisms for sharing such experiences are needed, also using synergies to existing databases and networks. This also applies to functioning national and regional structures, such as MAB National Committees.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

Strengthen partnerships and synergies of Biosphere Reserves with UN Agencies such as the United Nations Development Programme (UNDP), the United Nations Children's Fund (UNICEF) as well as the Global Environment Facility (GEF) and UNESCO networks such as Chairs, the UNESCO Associated Schools and National Commissions.

The potential of Biosphere Reserves for sustainable development implementation and learning needs to be promoted more intensively and through more channels (e.g. through private partnerships, through UNESCO National Commissions, through a potential "International Year of Biosphere Reserves"). While Biosphere Reserves nowadays are regarded mainly as sites for realising sustainable development strategies in cooperation with local communities, Biosphere Reserves of the "first generation" still focus on nature protection and research. They need to be adapted and improved in order to fulfil this role as learning sites for sustainable development. More Biosphere Reserves need to share experiences among each other, informally and through formal cooperation networks.

General conclusion:

UNESCO Biosphere Reserves have a high value in the ESD process, locally and globally, as spaces for mutual learning among communities, researchers, managers, decision-makers and other stakeholders. The lessons they provide in participatory approaches to combining scientific, local and traditional knowledge to pursue sustainable development choices need to be made widely available during 2010-2014.

Workshop rapporteurs: Doris Pokorny, Biosphere Reserve Rhön, Germany; Ali Djafarou Tiomoko, Biosphere Reserve Pendjari, Benin



Workshop 10: The Role of the Private Sector in ESD

**Coordinators: Katherine Madden, World Business Council for Sustainable Development;
Alex Wong, World Economic Forum**

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

The participants of the workshop agreed that Education for Sustainable Development contributes to improving the overall quality of education and learning in all types and levels of education. From the perspectives of the business and corporate sector, among others, key contributions of ESD were highlighted. It was underlined that ESD is important for business as it helps in improving business practices and assists the process towards sustainable development. Moreover, it provides opportunities for increased engagement between the private sector, civil society, Governments, employees and trade unions – through multi-stakeholder partnership processes, i.e. “better Public Private Partnerships”. ESD also helps in preparing a skilled, informed and responsible workforce and employees. Furthermore, it raises the awareness of all stakeholders such as customers, suppliers and employees about sustainability issues and challenges. This awareness is essential for improving the contribution of the private sector to sustainable development efforts. Finally, ESD is essential for a sustainable world, and a sustainable world is the precondition for sustainable and profitable business.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

The workshop participants, having shared their individual experiences, came to the conclusion that there is, firstly, a rich resource of sustainable development knowledge and practices across the private sector which can contribute to improving the overall learning environment and make this learning relevant to the sustainable economy. A second aspect is that the business sector is sometimes already incorporating sustainable development principles in its practices. These practices and experiences can contribute to re-orienting and improving education programmes and encourage innovation. Finally, sustainable development challenges are shared. Hence, there is a need for increased dialogue between Governments, civil society (including trade unions) and the private/corporate sector, i.e. companies.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

Workshop participants felt that even though the engagement of the private sector in the DESD processes was rather limited or fragmented, there are important lessons from the business and corporate sector experiences which are valuable for the DESD and ESD. The key points highlighted during the workshop are:

- The business/corporate sector has made significant achievements in integrating or implementing Sustainable Development practices but they are fragmented and not coordinated;
- With the emergence of global challenges there is a need for businesses, i.e. the private sector, to become integrated into the ESD process to strengthen the business licence to operate;
- The private sector needs to engage with the ESD community proactively in driving educational processes towards sustainability, e.g. to contribute to curriculum development, particularly at secondary and tertiary education levels according to business



Erich Harsch presenting a case study



Debating how to further engage with the private sector

needs, supporting the local suppliers to integrate sustainability into their business practices, etc.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

The workshop participants agreed unanimously that the private sector is an important stakeholder of the DESD. It has the experience, knowledge and resources, which need to be and can be fully mobilised. The workshop was seen as a positive step towards mobilising the private sector. The key points highlighted were firstly, that there is a need to integrate private/business/corporate sector experience, knowledge and experience in the DESD efforts better. One possibility will be the formation of a formal/informal multi-stakeholder body facilitating the engagement of the private/corporate sector in the DESD efforts. Secondly, it was felt to be important to facilitate the sharing of best practices on employee education through ESD.

Thirdly, a framework should be designed for a platform for sharing ESD results and a platform for this should be developed in communities. Fourthly, it is necessary to run a new monitoring, assessment and evaluation process on learning and ESD. Finally, a need was ascertained to foster industrial demand to drive innovation in the delivery of learning for ESD. In particular it was regarded as important to consider en-

couraging the business/corporate sector to support the establishment of ESD Chairs to strengthen ESD in business education.

Workshop rapporteur: Santosh Khatri, UNESCO Office Hanoi



Workshop 11: Media as Partners for ESD

Coordinators: Venus Jennings, UNESCO; Anne Marie Kalanga, Deutsche Welle

Introduction

The purpose of the workshop was to facilitate a favourable environment and partnerships between journalists, other media professionals and Education for Sustainable Development (ESD) experts in order to promote greater ESD understanding and collaboration. Three topic areas were considered: 1) coverage of ESD by the media in different regions and around the world; 2) cultivating greater participation by the media in ESD; and 3) identification of priority actions to strengthen media as partners in ESD.

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development to All of Education and to Achieving Quality Education

Why is ESD relevant?

Sustainability, as a concept and practice, is generally viewed by media professionals as broad and vague. Thus, the component of “education” in sustainable development represents an additional conceptual and professional hurdle. Complicating matters further, many in the media are wary of the idea of “sustain-

ability” (e.g., it is difficult to report, is composed of jargon, etc.). “ESD” is not a saleable product for the media until the stories are attractive to its large and diverse audience. Prithi Nambiar, an environmental activist and the Executive Director of the Centre of Environmental Education in Australia, pointed out that the media are by far more attracted to sceptical and sensational stories rather than stories that document process and reflect positive achievement. According to Anne Marie Kalanga, a journalist from the Democratic Republic of the Congo, it is difficult to come across editors in the international media who take an interest in reporting the outcome of high-level conferences on sustainable development issues. Selling a story is not the only challenge journalists face in reporting ESD.

Most journalists in volatile countries have no protection, access to relevant information, or relevant multi-disciplinary knowledge that would empower them with the ability to seek appropriate mentorship and enable them to successfully cover in-depth stories on sustainability issues. Such reporting can be complicated due to contexts that are secretive and resistant to reports that question the accountability of authorities. Journalists who wish to carry out in-depth stories must therefore face real personal security threats.

Prithi Nambiar provided an in-depth account of her struggle to chronicle the human, community, political, and economic processes that unfolded when the state government set aside established review processes, and permitted a cement company to build a limestone mining company on protected lands in India. Ultimately, this story was picked up by national media, and resulted in a reversal of the original policy decision. One “lesson learnt” from this process was that media covering the perspectives of all parties involved helps to reveal the underlying beliefs and motives for environmentally unsustainable actions. Increasingly, international media reports are diversifying reports on sustainability with the ability to cover wide-ranging views and aspects including science reporting. Enhancing ESD in journalism education may be a valuable approach to allow the “human dimension” tell the story of ESD, rather than to allow the media to educate, lecture or lobby ESD to the general public.



Journalist at the World Conference

Andrea Cairola, freedom of expression consultant, provided examples illustrating the importance of freedom of expression in media reporting at all times. He also emphasized that maintaining high professional standards is crucial for journalism. In the advent of new information and communication technologies, journalists may be cautioned not to assume that all news sources are adequately reliable and that verification and investigation must continue to be a core journalistic practice.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

The major thematic points that emerged under this conference objective were as follows:

1) media coverage of ESD and sustainable development varies tremendously around the world; 2) political pressure and economic decision-making (often outside the control or remit of journalists) may have an impact on the level of media attention accorded to ESD and sustainable development; and 3) issues that are considered of greater priority and magnitude may relegate ESD coverage to a lower status by editors and media decision-makers. An information sharing platform or mechanism to facilitate a comparative global analyses of media reports on ESD may lead to useful case studies and could initiate systematic monitoring of ESD and sustainable development issues media coverage at country and regional levels.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

Journalists, particularly in least developed countries, face many obstacles and pressures in promoting greater awareness of ESD. For example, in some countries journalists may be required to pay both for information that is relevant to coverage of ESD as well as access to news and broadcast media. The Internet also represents a new form of competition to journalists as information published on the Web is abundantly consumed by a public, which may not necessarily distinguish between journalistic and non-journalistic sources or be in a position to evaluate the expertise of media sources. The protection of journalists and concomitant restrictions on media who report on ESD and sustainable development issues vary significantly across regions but should nevertheless be addressed in a coherent manner by national and international media and professional organisations. Finally, with

limited economic resources, political instability, and chronic social/cultural conflict, impediments to timely media reports may be as basic and fundamental as sporadic access to electricity. Given an enabling environment, the media is a facilitator of information and a platform for democratic discourse that can contribute greatly to ESD implementation.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

It is important to identify and cultivate a core of experienced and devoted journalists who are motivated to report on ESD and sustainable development. Such individuals should become a source of support, mentorship, and expertise to colleagues around the world. Thus, as a follow-up from this conference, it may be helpful to consider the development of a network of ESD media colleagues who can share their perspectives and experiences with one another. Additional recommendations included the need for media institutions of higher learning to become much more deliberate and proactive vis-à-vis ESD emphasis during university studies. Likewise, greater exposure to ESD should begin at the primary and secondary school level; journalists can be active participants in this process, by channelling accessible ESD reporting to such audiences. Editors in particular need to become more educated about ESD, and those who are should be enlisted to inform their colleagues. Support for the use of alternative media (e.g. blogs), internships and distance education programmes relevant to journalists should be an important component of the ESD movement. In the final analysis, the media can catalyse awareness and change when adequately equipped, trained and informed.

Recommendations

1. It will not be possible to achieve the fundamental aspirations of ESD without considering the media as full and equal partners in the development, dissemination, and communication of ESD information and content;
2. In order for the media to fulfill its potential as a full ESD partner, and thus as an enabler of interactive debate and discussion at all levels of society, prerequisites include but are not restricted to 1) the right to information access, 2) editorial independence and pluralism, and 3) freedom of expression, which should be facilitated through ESD's multi-disciplinary and interdependent approach;





Workshop coordinators on the way to their participants

3. The insights gained during the first five years of ESD will be of great benefit if media capacities are assessed and strengthened in order to enable them to investigate and report issues and programmes that keep the public audience up to date, engaged, and participating in developments that concern all forms of education. Consideration being made for teacher training and education should also apply for media educators and trainers in order to promote an active interdisciplinary approach;
4. Public awareness is essential to mainstream ESD, particularly given the immediacy of priority issues including resource depletion, environment, population, disaster, etc.;
5. Work with media and communication networks and associations to review and affirm core principles that promote lifelong learning, social justice, gender equity, and other relevant values that are integral to ESD;
6. Identify and create appropriate information sharing and development mechanisms between stakeholders and media systems and organisations;
7. Design, produce, and promote a portfolio of “products” and “resources” to support the integration of ESD in media practice (e.g., education and training, curricula and professional development) and to enable recognition of ESD by media audiences around the world.

Workshop rapporteur: Craig N. Shealy, International Beliefs and Values Institute, James Madison University, Virginia, United States of America

Workshop 12: ESD in North-South-South & South-South Partnerships and Development Cooperation

Coordinators: Mumsie Gumede, Southern African Development Community Regional Environmental Education Programme; Marco van der Ree, United Nations Volunteers; Martin Westin, Swedish International Development Cooperation Agency

Introduction

The purpose of the workshop was to facilitate and explore the role of North-South-South partnerships and development cooperation in strengthening Education for Sustainable Development (ESD). To facilitate the discussions four key areas were considered:

- 1) Mapping existing North-South and South-South partnerships,
- 2) Collating lessons learnt,
- 3) Recommendations and tools for strengthening partnerships,
- 4) Initiating new partnerships.

These key areas were guided by the four conference objectives. For continuity, all participants were encouraged to consider the aims, outputs and outcomes of the previous and up-coming conferences as captured in the UNESCO document: *Quality Equity and Sustainable Development: A holistic vision through UNESCO's four World Education Conferences 2008-2009*. At the end of the workshop the following key recommendations were extracted from the four areas of discussions.

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development to All of Education and to Achieving Quality Education

Why is ESD relevant?

In discussing the relevance of Education for Sustainable Development in partnerships and networks, ESD was seen as a very good tool to address the issues relating to development cooperation in general. ESD was important seeing that the partners and networks tended to be multi-sectoral and multi-organisational, including participants from formal and non-formal education. The North-South-South partnerships were seen to be vital in contributing to the understanding and appreciation of multicultural diversity. They also provided a deeper understanding of the various contexts because they provided direct human communication. Part of the contribution by partnerships and networks was that they brought lessons and examples

that were embedded in real-life and real-time joint activities. From the discussions a number of partnerships and networks were identified.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

In any partnership and collaboration, trust is very important! In discussing what we can learn from each other, it was reiterated that we need to remove the stereotyping of the North-South-South relationships which mainly reduces the partnerships to an exchange of money from North to South. We need to establish these relationships with an orientation of mutual benefits. In order to support that we need to appreciate the different understandings of ESD, acknowledge that just as there are disparities, there are also many similarities in what we see as sustainable development. Linked to the diversity above is the diversity in what we see as priority issues.

Well-designed partnerships and networks in ESD do provide an opportunity for inclusiveness in addressing a range of issues in an integrated and holistic way: these include water, peace, education, climate change etc.

We also have to look at the various constructs of partnerships, from non-formal networks to structured, funded cooperation. Currently there are non-formal but effective networks like the World Environmental Education Congress network that started in 2003. However, there are also formal, and sometimes bilateral arrangements which are project-based. An example is the Swedish International Development Agency (Sida) / Southern African Development Community (SADC) cooperation on the Regional Environmental Education Programme. German GTZ through Inwent is starting a funded partnership project with India, South Africa and Mexico with the aim of training for better ESD mainstreaming. UN Universities supports the Regional Centres of Expertise; IUCN Commission on Education and Communication, and many others.



We should aim to connect different networks from different levels on different topics so as to create a suitable context of how to share resources in all world regions. These include institution to institution, programme to programme and various other combinations. Stakeholders have to work together at project level. It is important that we find means of making the networks and partnerships inclusive so that there is a grounded understanding of needs and therefore locally embedded solutions. Networks are very important tools (intergenerational partnerships etc.) for ESD and strengthening quality of education. It was recognised that NGOs tend to build bridges between the communities and the governments.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation
What have we achieved so far, what are the lessons learnt?

Workshop participants emphasised that sustainable funding is required in order to not only set up partnerships but also to maintain them. Partnerships and networks that have worked well either need to be well resourced and can thus afford project-based interaction, or have energetic vibrant dedicated drivers who are either volunteers or paid by institutions. While the strong need for funding was central to the debates, it was also mentioned that in some cases it is possible to have effective networks that do not require intensive funding. Those usually work with different relevant media and tools like radio, Skype, Facebook, etc., to reach out to the larger public.

Another lesson learnt is that face-to-face networks and partnerships tend to work best, especially when they are project-based. There is a need to facilitate the creation of mechanisms for inclusion of all stakeholders in the creation of knowledge and design of programmes.

Workshop participants voiced some frustration over Corporate Social Responsibility initiatives (CSR); they were seen as no more than advertising. However, the one representative from the corporate sector present at the workshop also pointed to the fact that enterprises would often like to contribute but seldom know how, and are of course looking for well-grounded projects and programmes from credible institutions. Multi-national companies are more than interested to cooperate with the relevant players and are happy to provide funding.

The media were highlighted as another key partner in ESD. However, it was stressed that there is an enor-

mous lack of capacity in all types of media – print and electronic – regarding Sustainable Development topics and Education for Sustainable Development. Hence, there was a call for investment in media training and the establishment of respective partnerships with a view to effective engagement with ESD.

Finally, it was emphasised that there is a need to strength collaboration among young people worldwide.

Conference Objective 4: To Develop Strategies for the Way Ahead
Where do we want to go from here?

The way forward was divided into two parts: the commitment of the participants and recommendations for UNESCO.

Key Recommendations:

The recommendations were categorised into general and specific for UNESCO

General:

- We all seek funding for creating and maintaining North-South-South partnerships and networks for them to become sustainable;
- We all ensure that the benefits of North-South-South partnerships and networks are mutual and that there must be an interest from all the partners involved;
- We involve policy-makers and experts in projects and partnerships so that the lessons learnt and innovations may be mainstreamed;
- North-South-South partnerships, networks, and collaboration should be mainstreamed into the design of all ESD programmes and projects;
- We all make an effort to share information about what we do in our various North-South-South networks.

Specific to UNESCO

UNESCO should support the sustainability of partnerships and networks by:

- Establishing a portal with the database of the partnerships / networks working in ESD and making this database accessible;
- Raising awareness about the global compact in order to create opportunities for partners in the private sector.

Workshop rapporteurs: Anna Veigel, German Commission for UNESCO; Alberto Hernandez Salinas, UNESCO





Workshop Cluster III

Capacity-Development for ESD

If Education for Sustainable Development (ESD) is to become a central aspect of all education, supporting structures at the global, national and local levels are required. Among other things, this implies political frameworks that enable the inclusion of sustainable development issues and principles into all areas of teaching and learning. The active involvement of civil society is equally key to introducing a broad concept such as ESD into education. Finally, ESD implementation itself must be a learning experience. Monitoring and evaluating progress must therefore be an important concern for all stakeholders. The following workshops addressed capacities for the successful implementation of ESD:

- 13. Global Responsibilities and Local Realities to foster ESD through Institutional Frameworks**
- 14. The Role of Civil Society in ESD**
- 15. From the Margins into the Centre: Establishing ESD in Education Plans and Curricula**
- 16. Teacher Education to Address Sustainability**
- 17. Monitoring and Evaluation of ESD**



Workshop 13: Global Responsibilities and Local Realities to Foster ESD through Institutional Frameworks

Coordinators: 'Masaqobela Williams, Ministry for Communications, Science and Technology, Lesotho; Tsepo Mokuku, National University of Lesotho; Michel Ricard, Member of the International Advisory Group of the Bonn Conference, former Chairman of the French Committee for the DESD; **Adviser:** Peter Woods, Department of Environment, Australia

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

Education for Sustainable Development is a driver for Education for All (EFA). Sustainable development, by definition, requires empowerment and full participation of all stakeholders. Therefore, EFA is a necessary framework for the success of ESD. ESD provides an impetus for collaborative work at local, national and international levels. ESD is a driver for the inclusion of youth, women, indigenous and other people often left out of sustainable development strategies. For example, the Society Development Colleges in Sudan provide training for women in how to deal with scarcity of resources. ESD is not an “add-on”; it is a framework for quality education. It is inclusive of many important “adjectival” educations.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

We should focus on sharing implementation strategies and supporting our ESD goals.

Sharing of resources, technology and training. Bilateral relationships in ESD at international level must foster mutual understanding and mutual benefits. For example, small island states in the Pacific need help with capacity-building. They benefit from resources provided by New Zealand; New Zealand benefits from the need and opportunity to adapt methods to a new ESD scenario. The Uganda National Commission for UNESCO has established a bilateral relationship with the Korean National Commission, and expects to establish additional partnerships to implement ESD. Among and within countries, capacity-building is facilitated by collaboration among stakeholders including government ministries, the corporate sector, non-governmental organizations, and community groups.

Sharing of models for coordination of efforts. In many countries, ESD efforts have been facilitated at national level. For example, in Uganda the National Commission for UNESCO effectively serves as a neutral negotiator among Government, non-governmental organizations and the private sector. In Japan, round table conferences have been organized at ministry level for inclusion of all stakeholders in ESD, with the goal of providing resources such as curricula, texts, funding for projects, teacher training, and partnerships with scholars and other experts. Australia has completed its Second National Action Plan, with the Environment Ministry taking the lead. Government officials in the Environment and Education Ministries are working together on ESD programs. A research institute develops priorities for ESD implementation, and the Sustainable Schools Programme coordinates action learning projects around the country.

In France, the Ministry of Ecology and Sustainable Development plays an important role. A National Committee, composed of sixty representatives of government ministries, corporations and civil society, facilitates collaborative efforts. A national seminar is being organized to share information about different ESD initiatives in the country. The constitution of Lesotho recognises the importance of ESD, and strategies for implementation have been developed by the ESD National Task Force. Lesotho is also participating in the development of a new regional network for ESD in southern Africa, and Sudan hopes to strengthen regional collaboration as well. This kind of collaboration is especially important in areas with significant cross-border immigration and resource-management issues. In the Netherlands, the Learning for Sustainable Development programme is managed by the Ministry of Environment; other ministries have yet to become fully engaged in efforts to implement ESD, when there is little collaboration between the Ministries now. In the United States, where educational planning is decentralized, most ESD projects thus far have been initiated at local level; at national level, very little has been done to facilitate networking among stakeholders.

Sharing of concerns about impediments to ESD, and the forging of political will to address those concerns.

Some of these concerns refer to legal issues. For example, in India traditional knowledge holders are reluctant to educate others about bio-resources because they have no internationally recognized legal rights to benefit from that knowledge. Resolution of this legal issue will increase access to knowledge important for sustainable development, and will increase indigenous participation in ESD. Patent applicants should be obliged to secure informed consent from traditional knowledge holders, with fair agreements for sharing of benefits. Traditional knowledge holders could be prepared for their role in patent negotiations through a vocational education certificate programme.

Other concerns are academic in nature. Centralized curriculum planning may assure national support for the implementation of ESD, or it may interfere with educational reforms necessary for implementation. On the other hand, in countries without centralized curriculum planning local initiatives may be readily adopted but it may be difficult to coordinate efforts. Access to education is a social justice issue. Informal and adult education opportunities promote ESD through the inclusion of stakeholders who have not benefited from access to formal educational experience; for example, women may be trained to serve as health educators in their communities, dealing with often sensitive issues such as sanitation and hygiene. Civil and international conflicts and wars often interfere with formal and informal educational opportunities, and with other programmes necessary for sustainable development. Strategies for peaceful resolution of conflicts must be part of any meaningful programme for ESD.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

Lessons learnt include: acknowledgement of the importance of coordinated efforts; an interdisciplinary focus; the inclusion of all sectors of society; the role of individuals as global actors in the Internet age; the use of Internet resources to further ESD goals, such as the use of Facebook in furthering foundation-led ESD goals in Dubai; the importance of other forms of networking such as conferences, festivals, mentoring relationships; and the importance of social learning.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

It is important to overcome the compartmentalized approach to ESD, so we make more effective use of time, money, energy and other resources. We must make better use of United Nations resources. We must make better connections among elements of ESD in formal and informal educational settings. It is important to learn from case studies and demonstration projects. When we share very concrete examples, we are empowered to get beyond policy talk and start identifying which successes are adaptable to new circumstances.

We must support meaningful local, national and regional agencies to develop relevant ESD structures, but also collaborate internationally to implement ESD goals and objectives. We must collaborate to develop the political will and models for advocacy to make ESD a priority, as well as a framework, for education.

Workshop rapporteur: Rebecca Timson, Billings Middle School (Education for a Sustainable Future Program), United States of America



Workshop 14: Civil Society and ESD

Coordinators: Sosten Chiotha, University of Malawi; Zabariah Matali, UNESCO Reference Group for the DESD

The workshop highlighted the role of civil society in Education for Sustainable Development (ESD) and its contribution to implementing the UN Decade of ESD (DESD). It aimed at engaging participants in discussions on the pivotal role of civil society in ESD and challenging them to reflect critically on the role of civil society in building capacity for all age groups through formal, non-formal and informal learning arrangements.

The background of the around 20 participants was mostly civil society, including both non- and semi-governmental organizations; a few participants were from academia in West European and Southeast Asian countries. The first topic was the role of civil society as a champion and catalyst for ESD. Secondly, the workshop looked at how civil society has influenced mainstream academic institutions on ESD issues. A third theme dealt with civil society as a diverse entity and the question of what the rallying points for scaling up ESD have been and what points of variance there have been that require further stakeholder engagement. Finally, the workshop discussed what civil society can do in the next five years of the DESD to assist in identifying and addressing the gaps between the kind of education still prevailing and the education necessary for the transition to sustainable development. The results of the group discussions can be summarised as follows.

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development to All of Education and to Achieving Quality Education
Why is ESD relevant?

Civil society is often based on voluntary work. This allows civil society to have autonomy, determination and the passion to work together, utilising the most appropriate methods in different contexts. Civil society needs to be recognised as a major expert, facilitator, and partner for the DESD at all levels. Civil society's capacity of running complementary actions with the national and local Governments are unique. Civil society has contributed to reorienting and redefining knowledge so as to generate new knowledge. It has

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

helped to identify, strengthen and share local and traditional knowledge. Finally, civil society can contribute to redirecting existing methodologies to enhance demand-driven action research. Civil society's work needs to be recognised and supported as a unique contribution to ESD.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

Workshop participants found that civil society has been both the main addressee and the main promoter of ESD. It has implemented concrete projects, and adapted or utilised the most appropriate methods in different contexts, mobilising individuals and groups in a community. Participants felt that an inclusive and participative approach is essential so that cultural diversity and creativity can be embedded at the centre of sustainable development education and actions. It was concluded that civil society had blended traditional knowledge and non-formal education processes with scientific and formal education to create and implement new and alternative knowledge and promote ownership of what is local.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

Workshop participants recommend the development of a platform featuring and sharing good practices from the full spectrum of ESD, especially covering non-formal and informal learning. This platform should comprise dialogue and online consultations. Moreover, participants recommended utilising and connecting existing UNESCO networks, such as the UNESCO Associated Schools and UNESCO Clubs and provide them with adequate resources. In addition it was proposed to strengthen the role played by UNESCO, the leading UN agency for the DESD, in particular through its regional offices and UNESCO National Commissions so as to facilitate and support the efforts of civil society.

Workshop rapporteur: Fumiko Noguchi, Japan Council on the UN Decade of Education for Sustainable Development (ESD-J)

Workshop 15: From the margins into the Centre: Establishing ESD in Education Plans and Curricula

Coordinators: Alejandrina Mata, Vice-Minister for Education, Costa Rica; Hannes Siege, Standing Conference of the Education Ministers, Germany

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

Education for Sustainable Development has an instrumental role to play in giving education a new direction. In order to do so, ESD has to move into the centre of curricula and education plans. Only then can ESD provide learners with a future-oriented viewpoint on the increasingly globalised world and issues affecting the future. ESD provides learners with basic competences that can enable them to act responsibly. It offers an opportunity to give a new direction to education as a whole. ESD provides a holistic vision of education. It is a new form of learning that emphasises active participatory and transformational learning. ESD and quality education are mutually reinforcing, aiming at the fullest possible development of the potential of learners. ESD underscores the application of knowledge and change in values and behaviour. It changes education from being transmissive to transformative.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

Countries have adopted different approaches to mainstreaming ESD with varying degrees of success. Various developing countries reported having experienced many challenges and difficulties in doing this, owing to a lack of resources and technical expertise. The participants recognised the need for North-South, South-South and North-South-South cooperation. Regional and sub-regional networks of Ministries, teacher education institutions and universities have worked in Africa (e.g. SADC REEP). The ENSA programme supported by Germany, which involves exchange between schools in Germany and developing countries, has shown promise in terms of strengthening ESD in schools and giving pupils and teachers an opportunity to acquire competencies related to ESD. Different forms of partnerships and networks involving multiple stakeholders should be utilised. The support of ministries at national level and head teachers at local level is a key element. To promote learning from each other ESD has to be put on the agenda of cooperating partners supporting the development of education to achieve the EFA and MDG goals.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

As a result of DESD efforts, a paradigm shift has occurred where the environmental notion of sustainable development is being replaced by an integrated view of sustainable development. Increasingly, issues and concepts of environmental education, global citizenship and development are occupying space in education plans and curricula. There is increased recognition of the need to mainstream ESD in all levels, types, components and dimensions of education. Many participants emphasised that elements of sustainable development are already present in schools but this should be further promoted and strengthened so that ESD is visible and acquires priority. A competency-based approach to ESD has potentials in terms of providing a holistic view of sustainable development. It also provided the opportunity to link ESD to the teaching subjects.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

A dual approach to mainstreaming Education for Sustainable Development should be adopted where ESD is promoted through subjects and at the same time integrated into all aspects of school life (subjects-based as well as whole school approach). ESD should be at the heart of the curriculum. However, the focus of the curriculum must encompass the areas of competencies such as knowledge, skills, attitudes and behaviours. Professional development of teachers is vital. The role of technology and internet in mainstreaming ESD should be encouraged. To achieve this, teachers need to be supported. ESD should be the overarching thrust of all subjects. Both top-down and bottom-up approaches should be promoted where all stakeholders are given proper orientation on ESD. It is also essential to carry out research to find out where gaps and barriers to integrating ESD are. Mainstreaming activities should be adequately resourced. Participants underlined that developing countries will need both technical and financial support.

Workshop rapporteur: Min Bista, UNESCO Office Beijing



Workshop 16: Teacher education in the DESD: Review and Directions

Coordinators: Lorna Down, University of the West Indies, Jamaica, Member of the International Advisory Group of the Bonn Conference; John Fien, RMIT University, Australia

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

Participants concluded that Education for Sustainable Development is relevant with respect to teacher education in that it helps making teacher education relevant to the task of achieving sustainable development through education. Moreover, it provides a conceptual frame for identifying core competencies for teachers and teacher educators that can help to improve the quality of education. It can support the improvement of the quality of life for students and teachers in schools and their communities through its contribution to improved teacher quality and focus on community values and action. ESD also facilitates the exchange of ideas across disciplines and various institutions. It highlights basic issues to be addressed for improving the quality of education in general. Finally, ESD promotes cross-disciplinary teaching and process-driven pedagogy.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

Participants concluded that Education for Sustainable Development works better if it is implemented from the “bottom up” as well as modelled by peers. Another success criterion is that ESD is institutionalized in teacher education and training programmes and teacher education departments and institutions.

Participants underlined that the infusion of Information and Communication Technologies (ICT) is extremely helpful for ESD projects and programmes. Furthermore, learner-centred approaches work best in ESD. It was emphasised that incentives are needed to encourage the infusion and spread of ESD in institutions. Such incentives do not have to be monetary or expensive. Finally, participants highlighted that collaboration with external institutions is often very helpful.



Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

Note was taken of two publications titled: *Guidelines and Recommendations for Reorienting Teacher Education to Address Sustainability*⁶; and *Good Practices in Teacher Education Institutions*⁷. Moreover, it was shared that regional networks for ESD have been established and are working on various ESD projects and programmes. It has been noted that small-scale progress in facilitating and implementing ESD is being made in several countries at different levels of organization such as through individual teaching and learning, at school / institutional levels, at Government level, through NGOs, and through consortia of academic and non-academic institutions. Examples of successes included projects in India, Jamaica, Canada, Pakistan, Cameroon, and Iraq.

Participants reported various lessons learnt from attempting to implement ESD. Several challenges were identified such as a lack of financial incentives to encourage teachers to engage in ESD and a lack of resources for teaching ESD. It was underlined that qualified teachers who can engage successfully with ESD projects are often missing. Participants underlined that the poor remuneration for teachers often leads to poor quality of teachers and low motivation among them.

Effecting the paradigm shift necessary within the discipline of teacher education to facilitate ESD remains a challenge. Further efforts also need to be made to ascertain how to integrate ESD across disciplines and across education at various levels and how to lobby for the inclusion of ESD in curriculum reforms given the various models / frameworks / theories of education competing for inclusion. Workshop participants emphasised the lack of clarity in understanding ESD as a concept. It was underlined that while seeking to clarify the concept of ESD, ways need to be found to take cultural variations in the understanding of ESD into consideration.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

Participants suggested the following critical actions:

1. Improve communication and dialogue regarding ESD locally and internationally:
 - Set up an informal international network for those interested in ESD,
 - Facilitate connectivity to strengthen inclusion of all voices speaking about ESD in local and global communities,
 - Encourage sharing of best practices and lessons learnt regarding the implementation of ESD;
2. Improve development and infusion of ESD knowledge (content and strategies) in teacher training institutions;
3. Work for stronger university commitments to ESD;
4. Call for opportunities to document reflection and reporting of work with ESD in UNESCO publications;
5. Improve research into knowledge gaps regarding the implementation of ESD;
6. Lobby for inclusion of research in development of policy / plans for ESD;
7. Include teaching of systems thinking, management of emotional processes, and values in ESD programmes;
8. Focus on creative, problem based and transformative methodology;
9. Include social learning, action oriented processes, democratic approaches and links to communities in ESD programmes;
10. Set up National Councils to develop a common agenda for ESD.

Workshop rapporteur: Carol Hordatt Gentles, School of Education, University of the West Indies, Jamaica



Workshop coordinator Lorna Down discussing actions

6 UNESCO Education Sector. "Guidelines and Recommendations for Reorienting Teacher Education to Address Sustainability" Technical Paper N° 2 (2005). Download at <http://unesdoc.unesco.org/images/0014/001433/143370E.pdf>

7 UNESCO Education Sector. "Good Practices in Teacher Education Institutions". Good Practices N°1 (2007). Download at <http://unesdoc.unesco.org/images/0015/001524/152452eo.pdf>

Workshop 17: Monitoring and Evaluation of ESD

Coordinator: Daniella Tilbury, University of Gloucestershire, UNESCO Monitoring and Evaluation Group

This workshop provided opportunities for participants to be actively engaged in issues associated with monitoring and evaluating of Education for Sustainable Development (ESD) during the UN Decade of Education for Sustainable Development (DESD). They were asked to engage in a scenario planning situation and fish bowl exercises as well as in group discussions and analysis.⁸

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development to All of Education and to Achieving Quality Education

Why is ESD relevant?

Education for Sustainable Development is relevant to education for several main reasons. ESD seeks a new vision for education which helps learners to better understand the world where they live. It supports learning which is locally and culturally relevant and based on active, critical, exploratory, creative and learner-centred approaches. It seeks a focus on challenging dominant mindsets and practices which hinder pathways to a sustainable future. ESD calls for a re-orientation of education systems as these have failed to provide learners with the skills needed to move to a more sustainable future.

The scope of the DESD is broad and its potential effects are far-reaching. If it is successful, the DESD could transform not only education but also the quality of life of many across the globe. For this reason, it is important to look at ways in which we can effectively monitor progress and capture learning in the process of implementation. The DESD International Implementation Scheme stresses that Monitoring and Evaluation (M&E) is not only a way to assess progress in ESD, but also a mechanism to implement the Decade. Thus, the process of M&E is more than just measuring performance; it offers the opportunity to engage stakeholders in ESD activities. The development of ESD monitoring and evaluation frameworks helps ensuring ongoing relevance and effectiveness of ESD

efforts; guiding planning and reorienting of ESD programmes; increasing understanding of ESD progress; and improve decision-making and action-taking.

M&E is important to ESD as it is also a 'learning to change' and a capacity-building process itself, in which stakeholders are involved in a complex process of: understanding and identifying indicators; capturing learning in implementation processes; reporting progress on ESD; raising key questions to re-orient existing practices; and taking relevant actions for the future.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

Monitoring and evaluation processes can assist in assessing change but also acknowledge the importance of involving stakeholders from different cultures, contexts and levels of experience in ESD in the 'learning' process which results from reflecting upon progress. Therefore, identifying and engaging stakeholders from across all sectors is key to advancing M&E processes in ESD. This process of engaging stakeholders is as important as defining the monitoring and evaluation framework or ESD indicators.

Workshop participants recognised how international exchange is relevant to share different perspectives and experiences on how to improve the collection of better data in ESD which can actually capture ESD realities. International exchange is also important to share and acknowledge the challenges and limitations of M&E mechanisms: What can be monitored?; What cannot be monitored?; What are the resources available?; How can the existing M&E systems help us in assessing progress?

⁸ To enrich its analysis, this report has drawn on Tilbury, Daniella. "Monitoring and Evaluation during the UN Decade of Education for Sustainable Development". *Journal of Education for Sustainable Development* 1(2) (2007): 239-254; and Mulà, Ingrid and Tilbury, Daniella. "A United Nations Decade of Education for Sustainable Development (2005-2014): What difference will it make?" *Journal of Education for Sustainable Development* 3(1) (2009): 87-97

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

A collection of experiences and summaries, presented in different UNESCO documents and reported in the workshop, suggest that the DESD has facilitated the adoption of ESD policies and strategies, ESD working groups and focal points, monitoring and evaluation initiatives and the engagement of stakeholders in ESD activities. However, workshop participants stressed that it is still too early to draw a conclusion and state whether the DESD has already made a difference. It is also difficult to ascertain the value and impact of those ESD initiatives which have taken place during the DESD, and to know to what extent the Decade itself has contributed to their development. However, it is a good time to ask questions regarding the value and legacy of the DESD. Participants recognised that progress during the Decade will depend on the coordination among the different stakeholders and networks.

Workshop participants agreed that the network of Regional Centres of Expertise (RCE), coordinated by the United Nations University (UNU), is a good example of what the Decade can achieve. More than 60 RCEs exist around the world and they are planning and developing creative projects involving different ranges of partnerships.

However, ESD is still at the margins. Although more ESD policies exist and interesting initiatives such as the RCE network have been developed, there is still a lack of financial resources and governmental support; there are still no common cultural values supporting ESD; and sustainable development is still not embedded in all education sectors.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

The workshop was designed to develop strategies for the next M&E phase, based on assessing learning processes in ESD. This means, that it will be important to determine the focus and the targets which need to be monitored. Workshop participants agreed that this is a difficult task as there is a need to define what learning means and to find ways to know how and which type of learning is translated into actions which lead to sustainable futures. Therefore, criteria to monitor innovative learning, such as experiential, inquiry-based, problem-based learning, will need to be de-



Deciding upon priorities

fin. Workshop participants also emphasised how competencies in ESD as well as a change in value-systems should be foci of the next M&E phase.

Monitoring and Evaluation in ESD needs to be planned and reported through multi-stakeholder consultation, not only involving government agencies and departments, but also civil society organisations, education institutions and the business sector, taking into account the existing diversity of cultural perspectives. This means that it will be essential to determine who are the key stakeholders, who will need to be involved in this second phase, and the ways they can contribute to the evaluation process. This entails to empower and engage people and organisations to take part in the process in order to include their different voices and perspectives. The stakeholder involvement will require adequate training to build capacity and develop skills to effectively monitor and evaluate ESD.

The second Monitoring and Evaluation phase will also have to set in place an accurate system to collect data and thus evidence of what is globally happening in terms of learning for sustainable development. Workshop participants suggested creative ideas such as: collect data in conferences where different stakeholders meet; create online systems to enhance the opportunities to contribute to offering evidence; development of longitudinal studies to measure changes over time; and to document stories of change.

Workshop rapporteur: Ingrid Mulà, IRIS, University of Gloucestershire, United Kingdom



Workshop Cluster IV

ESD and the Teaching-Learning Process

The integration of Education for Sustainable Development (ESD) into education varies among different fields of teaching and learning. Requirements, practices and opportunities of ESD vary from one education setting to another. Moreover, when addressing the role of ESD in education, the important question of how Education for All (EFA) and ESD relate to each other must be considered. The main thrust of each workshop in this cluster was: how can ESD contribute to improving the quality of teaching-learning processes?

18. **EFA and ESD Dialogue: Creating Synergies and Linkages for Educating for a Sustainable World**
19. **Better Schools at Pre-school, Primary and Secondary Levels through ESD**
20. **The Role of Higher Education and Research in ESD**
21. **ESD and Lifelong Learning**
22. **ESD and TVET – Developing Skills and Labour Force Competencies**



Workshop 18: EFA-ESD Dialogue: Creating Synergies and Linkages for Educating for a Sustainable World

Coordinators: Karin Jahr de Guerrero and Nadja Bleiber, German Federal Ministry for Economic Cooperation and Development; Khawla Shaheen, UNESCO

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

There was a strong consensus that synergies between Education for Sustainable Development and Education for All (EFA) will strengthen both agendas and bring them mutual benefits. In particular, ESD can help EFA achieve its goals by ensuring that increased emphasis is placed on relevance, appropriateness and contextualised learning and by incorporating indigenous and local knowledge. 'Knowing is not enough': there is a need for education for empathy, which includes empathy for future generations, education for praxis, problem-solving, critical thinking, responsibility, and for inclusive societies. ESD's commitment to the values and concepts of sustainability and to processes of critical thinking and reflective practice also strengthens the quality dimensions of EFA. In addition, EFA can draw on ESD's experience in interdisciplinary work across both the natural and social sciences to enhance the quality of learning and the development of educational systems appropriate for the 21st century. Education alone is not sufficient to address 'capability' and poverty⁹, indeed sometimes it can compound them and even become part of the problem¹⁰; therefore, it is the **kind** of education which matters. For this reason, an educational process is needed that is transformative, develops socially critical thinkers, and enables citizens to hold those in power accountable. This needs to be addressed at an individual as well as collective level.

ESD, with its broader reach and perspective, could help to 're-imagine' EFA delivery outside the constraints of school systems, for example, learning in and with the community¹¹ and forging links between schools and communities. Nearly half of the world's population are young people, most of whom are in developing countries. Therefore strong opportunities exist for EFA and ESD synergy. ESD can also enhance the

quality of EFA by incorporating the concept of lifelong learning and by providing an opportunity for rethinking how educators are trained in order to strengthen inclusive, participatory, facilitative approaches to teaching and learning. Synergies between EFA and ESD could enable more joint training between formal and non-formal educators and seek to break down the divisions between the two agendas. It offers opportunities for learning in, by and as communities.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

ESD is for everyone but it is most urgent for those at the top with the greatest power to affect change. Participants felt that UNESCO should encourage and set up further opportunities for key people to come together in order to develop joint EFA-ESD strategies.

It was expressed, however, that ESD until now has mainly been focused on richer countries though it should be viewed as an entitlement for everyone. Education which can sustain lives and people is essential. It was underscored that "ESD is not a luxury but a necessity" both from an ethical but also a practical standpoint. Educators from richer northern countries and southern developing countries need to have more opportunities to share ideas and develop programmes of mutual benefit.

Some work has been carried out to develop EFA-ESD agendas. Several participants saw EFA as a **target**, and ESD as content and methodology. A participant from South Korea, for example, mentioned that it has achieved EFA but has a long way to go with ESD.

Many participants felt that current formal education systems were preventing the introduction of ESD because of their inflexible curricula. It was emphasised that a wholesale transformation in the way education is perceived was necessary. Participants believed that the need to acquire additional resources was not

⁹ Sen, Amartya. *Development as Freedom*. New York: Alfred A. Knopf, 1999.

¹⁰ See among others, David Orr 2004 *Earth in Mind: On Education, Environment and the Human Prospect*. Washington D.C.: Island Press, 2004.

¹¹ Community is meant here in the broadest sense, not just geographically.

always necessary, but rather an adoption of different approaches; such as closely linking the formal, non-formal and informal sectors together. Further opportunities to make these links at local, national and sub-regional levels would facilitate this process.

Workshop participants stressed that the Conference offered NGOs, Governments, the community sector and private sector organisations an opportunity to work together. However, many believed that there are more opportunities within regional and existing structures and also perhaps the Regional Centres of Expertise (RCE) process.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

Participants underlined that ESD and EFA thus far are not strongly integrated and therefore integration needs to occur immediately. Such integration should build on existing structures and mechanisms where possible. Some countries (for example the Southern African Development Community (SADC) which has a protocol on ESD) have made greater progress than others.

A positive start has been made with EFA-ESD dialogue and it needs to be taken forward by UNESCO as a matter of urgency. UNESCO could build on the EFA-ESD dialogue technical paper to take the process forward. In some countries this process is already being developed. An example of such initiatives is the UNESCO UK National Commission's ESD working group planning of an expert seminar on the dialogue paper in June 2009 in the United Kingdom.

The current global financial crisis offers an opportunity to develop a strong case for quality education (EFA and ESD) because it underscores the need for the world to change in the light of the global challenges, especially that of climate change.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

Develop structures which link EFA and ESD agendas while recognising their individual and particular attributes, goals and perspectives.

There is a need for more intersectoral collaboration and partnerships: strategies and structures need to be put in place and financed. Although this process should be facilitated by UNESCO there is also a need for ESD and EFA practitioners on the ground to take it forward. This needs to happen at all levels: regional, national, international, between different UN bodies and within UNESCO itself. UNESCO, as the lead UN agency for both ESD and EFA agendas, has a key role in making this happen, and therefore should seek to build on existing structures.

Proposed key activities:

Participants emphasised that policy-makers needed ESD capacity-development in the light of the urgency of the challenges of climate change and the current financial crisis. This should include civil servants, Government, media, leaders of the private sector – all major change agents. In order to form a critical mass of informed and politically active citizens who can put pressure on policy-makers and to provide quality education for all, ESD implementation at school level should also be further actively promoted.

Many participants felt that the current financial crisis offered an opportunity for a review of the neo-liberal growth agenda which has substantially failed to address issues of climate change and sustainable development, including poverty eradication. ESD can offer a socially critical framework through which to address these current challenges.

In order to do this effectively, participants stressed that ESD needed a higher profile in educational debates and policy-making platforms (both national and international). UNESCO clearly has an important role to play in this regard. This includes the need for UNESCO to lobby for funds for ESD (especially for capacity development, training, advocacy, and awareness-raising) as well as for EFA.

It was felt that ESD should be put on the agenda of international meetings and other UN agencies' agendas. Participants emphasised that UNESCO could, for example, raise the interest of the World Bank in ESD as it has done with EFA or train international funding agencies to incorporate ESD in the same way that they have incorporated gender. EFA needs to bring in a range of other partners, for example from the economic and environmental sectors to explore the range

¹² Wade, Ros and Parker, Jenneth. "EFA-ESD Dialogue: Educating for a sustainable world" UNESCO Education for Sustainable Development Policy Dialogue No.1: 2008



of factors which (in addition to education) are contributing to the challenges in attaining the EFA goals. There is a need to further link formal and non-formal educators to share practice and expertise in quality-relevant education for all and for sustainable development. This is of particular importance for teachers and educators. Goal 3 of EFA (Promote learning and life skills for young people and adults) can be addressed within this context: Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programmes. Finally, it was underlined that climate change concerns are an opportunity to link EFA and ESD not just for mitigation but also for adaptation of social systems.

Research agenda

Participants pointed out that ESD needs to work more closely with EFA and higher education institutions to find ways of developing holistic, interdisciplinary capacities and structures which could be implemented in educational systems. Current systems of measurement and evidence collection are not yet adequate in reflecting and evaluating quality education, and it was felt that ESD-EFA synergy could help to develop this area. Effective indicators for quality education should be developed by 2015. In relation to ESD, the UNESCO Monitoring and Evaluation Expert Group is already working in this area and opportunities for EFA-ESD synergies exist in this regard. Interregional as well as international research programmes would enable more contextually relevant research and evidence.

Teacher Education

EFA's two key challenges, shortage of qualified teachers combined with concerns about the quality of teacher education in some regions, mean that EFA-ESD synergy is an imperative. In particular, it was emphasised that opportunities should be developed for the involvement of community non-formal and informal educators, including NGOs to participate in teacher education and to help break down the barriers between the formal and non-formal sectors as well as between different disciplines. It was also stated that much more professional development at school level is needed because centralised top-down programmes can be counterproductive or contribute to the disabling of teachers. UNESCO's International Network of Teacher Educators in ESD could provide opportunities to develop EFA-ESD synergy.

Workshop rapporteur: Ros Wade, London South Bank University, United Kingdom

Workshop 19: Better Schools at Preschool, Primary and Secondary Levels through ESD

Coordinators: Moacir Gadotti, Paulo Freire Institute, Brazil; Jeannette Larue, Ministry of Education, Seychelles

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

ESD has promoted or given visibility to concepts key to quality education. Examples of this include: the concepts of “*whole school approach*” “*eco-schools*”, and “*sustainable schools*”. These concepts have been put into practice in more and more settings. Other reported initiatives aim to give meaning to, and develop actions around, specific aspects or dimensions of ESD, allowing school experiments such as “*Special Theme Days*”, a week-long stay in the forest, school clubs (focusing on wild life, school gardens or farming), small science projects, and including local knowledge in school curricula.

Even though some of these practices may exist prior to (and without) the introduction of the notion of ESD, and recognition should be given to these practices as such, the broadness of ESD will enable a clearer conceptualisation of all attributes of quality education. (What matters is not the “*label ESD*”.) ESD reinforces the key elements and characteristics of quality teaching and learning: the school environment, the physical set up of the school (recreation areas, classroom, cafeteria, green areas, cultural activity, sanitation, water supply, mini-museums, healthy food, water harvesting, etc.); the social aspect (valuing pupils’ culture), the linkages with the school community; and intercultural approaches.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

There is a need for promoting networks of teachers and encourage exchange programmes both among students, teachers, school principals and parents associations, as well as education managers. Recognition of cultural diversity and national specificities enhances understanding of what works in a specific context and may not in another.

There are alternative ways of generating resources, relying on school initiatives but also involving the larger community with private enterprises and business companies, to support ESD initiatives. Research should also be supported to inform ESD practices and policies. Sub-regional and regional initiatives, e.g., teachers, school leaders networks, research networks, students associations (UNESCO Clubs, UNESCO’s Associated Schools Project Network) contribute to international exchange of experiences.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

First, there is a realization that we should break from the perception of ESD as a “*new thing*”. For this makes it difficult for people (practitioners, mainly) to perceive relevant experiences that qualify as good ESD practices at school level as worth reporting. At the same time, ESD calls for change. Knowledge needs to be “*reconceptualised*”. Teaching and learning are to be viewed as evolving and mutually supportive. Pre-school needs to be revalued.

Apart from this realization, achievements include an enhanced awareness of inter-disciplinarity in ESD practices. The role of teachers and school principals in realizing DESD goals at schools level is increasingly acknowledged as paramount, together with the involvement of parents and communities in the way schools operate and learning and teaching conducted. One impediment to this is the rigidity of “*prescribed*” curricula and of official examination systems, which prevent teachers’ creativity and innovation in teaching and learning. Another limiting factor is the capacity of the actors (teachers and principals) who need to be trained and motivated to become facilitators and promoters of innovative practices towards the DESD goals.



Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

The majority of workshop participants came from Government, which might lead to the conjecture that other stakeholders (e.g., the private sector) have little interest in school-based issues. There is a need to increase the latter's awareness of the issues for their needed involvement in school-level decision-making and initiatives.

There is also the need to highlight the role of school leadership for a successful, broader and deeper infusion of ESD practices in school activities, and their support to teachers, especially in remote areas, who require (re)-training. Sustainable school environments require consistent funding. Fundraising initiatives at local, national and international levels should be undertaken.

For actual and effective mainstreaming of ESD in learning and teaching, ESD subjects and activities should be made "credit-bearing" to motivate students and teachers. Examinations and testing systems should be reviewed to make them consistent with ESD practices. Learners' creativity and collective initiatives should be adequately rewarded.

While the harnessing of the potential of Information Communication Technologies should be promoted, efforts should be made to allow and make sufficient room for real human contacts for and among school actors: students, teachers, parents, community, at national level and internationally.

Documenting and disseminating information on specific concepts, such as "Eco-schools" (although mostly environmental) should be promoted to create familiarity around what they stand for and allow experience sharing from around the globe. UNESCO's Associated Schools Project Network is called upon to continue playing a key role in this process.

Workshop rapporteur: Edem Adubra, UNESCO Windhoek Office

Workshop 20: The Role of Higher Education and Research in ESD

Coordinators: Rosalyn McKeown, Portland State University; Yoko Mochizuki, United Nations University, Institute of Advanced Studies (Teacher Training, Multidisciplinary Research, Innovation and Critical Reflection)

This workshop was divided into a number of sessions which were all characterised by a series of brief, pre-arranged, and diverse inputs from attendees representing institutions from across the world; and questions and points from the floor.

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

Higher education is important to sustainable development for three main reasons. One is the immediate interface with employers where students go into work where the sustainability issues faced by society are met on a daily basis. There are examples of this connection across the entire higher education disciplinary spectrum. It is sometimes said that, although the higher education sector might have a relatively small proportion of society's ecological footprint, it has 100% of the students, and the opportunities and responsibilities that follow from this need to be taken seriously. Although the idea that students need to be engaged in these matters through teaching programmes and additional campus-based activities seems relatively clear; much less clear is how this might usefully be done, and for what reasons. These latter points remain, correctly, contentious.

The second reason is the unique research remit of higher education institutions. This hardly needs stressing in one sense, as university research and scholarly activity will continue to be key components of social progress – however we come to see this. Of course, opportunities for sustainability-related research are growing as both research funders, business and third sector organisations see the need for appropriate research. It is worth noting, however, that although the scope of research stretches across higher education institutions' disciplinary base, the opportunities for inter-disciplinary research – and its reporting – remain largely unrealised owing to a range of factors, some

of them institutional, some disciplinary, and others external.

The third reason is based on the premise that higher education institutions have direct links with business and the community where research could be disseminated, connections made, and social change brought about – all of which will be crucial to help society transform itself.

What a university does can be classified, one way or another, as teaching, research, or administration. A particular tension exists across all three of these domains which we might think of as a tension between stability and change, and between certainty and speculation. It is fuelled, on the one hand, by the imperative to archive, protect, apply and bequeath existing knowledge; and, on the other, the need to challenge that knowledge, to break through into unexplored territory, to go beyond problem-solving into comprehensive problem-redefinition. In the present, there is an expectation that everyone will face new, unimaginable circumstances in their lifetimes with which, in one way or another, and for better or for worse, they will have to learn to deal with. This means that the tension between the known and the unknown is now just as strong for university teaching – as it is in research. Whilst particular people, at particular times and places, may want the stress to be on knowledge transmission, or on a challenge to that knowledge, inescapably now both are crucial. This tension is also characteristic of societies that have universities. In fact, it is to universities that societies delegate a large part of the responsibility for informing their management of the problem of, as Jared M. Diamond puts it in *Collapse*,¹³ 'choosing to fail or survive'. As his historical analysis well illustrates, this choice involves, crucially, knowing at any time which knowledge to revere and which to abandon – but the significance of such a choice has been known for a long time – certainly for long before anyone began a discussion about sustainable development.¹⁴

¹³ Diamond, Jared M. *Collapse: How Societies Choose to Fail or Succeed*. New York: Penguin, 2005.

¹⁴ To aid its analysis, this aspect of the report has drawn on Gough, Stephen and Scott, William. *Higher Education and Sustainable development: paradox and possibility*. London: Routledge, 2007.





Conference Objective 2: To Promote International Exchange on ESD
What can we learn from each other?

It is clear that it is not adequate just to focus on what change has been enabled as universities grapple with issues around sustainability; of equal importance has to be a focus on *how* change has been effected and what have been the positive (for example, successful incentives and awards, and tangible achievements) and the negative features (for example, financial and opportunity costs) of this. Thus, participants underlined that context and organisational structure and politics are all important when describing and reporting such change events. This requires a particular kind of case study approach – one that takes the process of change seriously. Such case studies, and other research stories, need to be written in ways to enable others – who may be in organisationally and culturally quite different situations – to see the relevance of the *what* and the *how* to their own context. There also needs to be a critical focus on methodology, as how we come to know what is being claimed is a crucial aspect of any claim to validity.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation
What have we achieved so far, what are the lessons learnt?

Participants from across the regions presented broadly positive and thoughtful views on what was being done and achieved, and on how constraints and barriers were being addressed. The unique positioning of universities in having, essentially, all the world's undergraduate students studying within them prior to taking up a career where sustainability issues are increasingly likely to be at the fore, means that the

incorporation of sustainability issues into undergraduate programmes is a key opportunity for institutions. It seems clear that a number of distinct models of effecting this are being developed, not least of which are the ways in which students are encouraged and enabled to work with organisations of all kinds (charities, public sector entities, partnerships, private corporations, etc.) in order to get actual problem-solving experience as a key (or complementary) aspect of their studies. Literature exists on the way that universities are participating in what amounts to nothing less than a reconceptualisation of the professional role.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

The need for greater interdisciplinary research was widely stressed as was the need for national and sub-regional policy-level incentives to stimulate it. Equally important was the need to try to ensure that research and/or development are reported in sector-significant outlets, in explicit leading, as well as niche journals. Many attendees saw UNU's Regional Centres of Expertise (RCE) and RCE international networking as important ways of aiding the collaboration of universities, and their reaching out to communities through a common agenda. One point that was stressed strongly was the diverse nature of universities across the globe and even within regions or countries. Universities can have widely differing approaches to, roles, foci and structures and, because of these and other factors, may well have different sustainability issues. It was thought that this means that each institution needs to follow a development path in relation to sustainability that makes contextual and contingent sense to it. Further, it was concluded that the world's universities can be thought of as being at different stages in their dealing with sustainability issues: from some quite experienced, sophisticated and advanced, to others who have scarcely begun even to think about how to begin. Whilst all such development is both contextual and contingent, it may be possible to say something conceptually sensible and helpful about such stages, and about how institutions could be helped to become aware of their own developmental achievements and ongoing needs.

Workshop rapporteur: William Scott, University of Bath, Centre for Research in Education and the Environment, United Kingdom

Workshop 21: ESD and Lifelong Learning

Coordinators: Adama Ouane, UNESCO Institute for Lifelong Learning; Liu Yunhua, Shangri-la Institute in China, Member of the International Advisory Group of the Bonn Conference

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

Learning for sustainable development is a process that continues lifelong and therefore takes place in a whole range of learning environments that may be formal, non-formal and informal in nature. The ultimate objective is a better future for all.¹⁵

The workshop highlighted the diversity of approaches, ways of understanding and interests as well as a range of theoretical and political principles underpinning Lifelong Learning's contribution to Sustainable Development (LLLSD). Participants discussed the essential contribution of ESD to all of education in four groups.

According to the **first group**, LLLSD is about developing those competences that people require to understand their relations with one another and the rest of nature and realise forms of citizenship that enable the continued co-evolution of human and non-human nature. The principles of LLLSD should be multi-disciplinary and holistic, involving critical thinking and problem-solving, diversity in the methods used for teaching and learning, as well as participatory practices in decision-making which are relevant both locally and globally.

The **second group** stressed the importance of making lifelong learning a reality, considering the overwhelming current subsectoral thinking and lack of action. LLLSD is not about pre-determined competences, but about those that emerge when people address issues facing their community and learn from one another. It is necessary to consider values, attitudes, new ways of learning and change in behaviour. All competences have relevance in some contexts. There should be opportunities for all to become lifelong learners and to build learning communities and societies. LLL goes beyond the education system to involve politics, economics, religion, media and the larger civil society.

Two key principles of LLLSD concern the protection and conservation of natural resources as well as justice, redistribution of resources for equitable societies and common responsibility for all humanity.

According to the **third group**, LLLSD is about learning to learn and creating (new) mind-sets and values for future-oriented living and about fostering skills for sustainable approaches in the economy (micro-enterprises, informal economy) and communities. It was felt necessary to put definitions into easily understandable terms so that the meaning of LLLSD becomes accessible to everybody not just to experts.

For the **fourth group**, LLLSD is Education for All (EFA) that is lifelong and for sustainable development. It is about learning continuously, focusing on sustainable development, and the ever-changing and ever-evolving nature of knowledge. Two principles were important: one was that everyone should be able to develop; and second that everyone must learn to contribute to sustainability. ESD should not only be implemented through formal education, but it should be lifelong, including learning in formal, non-formal and informal settings.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

In the workshop, three case studies were presented which are summarised in the following.

A participant from *Bangladesh* emphasised that non-formal LLLSD can fill gaps and complement the offer by formal education. It can cater for the specific demands of the communities in the context of improving their livelihoods. Moreover, LLLSD is able to link up with specific income-generating opportunities for the learners (sustainable agriculture, water and sanitation, entrepreneurship education) as well as with local communities and involve them in the provision of learning opportunities.

¹⁵ See Heideveld, Antoine and Cornelissen, Susan. Learning for Sustainable Development, Exploring Learning Strategies Across the Lifespan. Netherlands National Commission for UNESCO / Dutch Institute for Vocational and Adult Education (CINOP) (2008): 15



A participant from *China* drew attention to the importance of utilising traditional wisdom and local knowledge to inform appropriate learning and action. Traditions, religious concepts and indigenous knowledge are some of the strong foundations for the building of sustainable communities.

A participant from *Burkina Faso* highlighted how the real contribution to a new vision of education has to come from civil society organised at national level. The strong determination of all stakeholders, especially civil society, is important, along with the need for budget resources dedicated especially to non-formal education. LLLSD concerns the promotion of equity, democracy and environmental protection within a holistic, inclusive, diversified education in a wide range of settings, and tailored to individual experiences.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

Workshop participants emphasised that an *integrated approach* that brings together different societal sectors (community education, civil society, the media, religion, culture, the economy, family, industry, etc.) is of central importance. Moreover, it was stated that *continuous learning* opportunities in all communities are essential. *Guidance for learners* on where they can learn and what they can learn needs to be provided. Central to ESD is a value- and community-based learning that challenges pre-determined content.

Participants highlighted that synergies and bridges between formal, non-formal, and informal education are essential. Sustainable development makes up the content, principle, and the main aim of the whole learning process. Approaches to sustainable development vary according to different local contexts. Finally, it was stressed that EFA is *for* sustainable development.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

1. Lifelong learning has to be an *overarching framework* and an *organising guiding principle* for planning and supporting learning systems, which include formal, non-formal and informal learning, with the *aim* of achieving sustainable development;
2. Sustainable development understood in its broader sense – including values, norms, culture and traditions – is the *content* of lifelong learning;

3. Lifelong learning for sustainable development emphasises *learning processes* from learning to act and learning to change;
4. *Support structures* and opportunities need to be available to endorse this kind of learning;
5. All kinds of learning including unstructured and non-hierarchical learning need to be valued and recognised.

Workshop rapporteur: Astrid Hollander, UNESCO Santiago de Chile Office

Workshop 22: Developing Skills and Labour Force Competencies Including TVET in Support of Sustainable Development

Coordinators: Rupert Maclean, former Director UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training; Harry Stolte, Inwent – Capacity Building International; Dagmar Winzier, German Federal Agency for Vocational Education and Training

Conference Objective 1: To Highlight the Essential Contribution of Education for Sustainable Development (ESD) to All of Education and to Achieving Quality Education

Why is ESD relevant?

Technical and Vocational Education and Training (TVET) is an important educational sector that – through its graduates – directly influences the sustainability of society, economy and environment, and therefore is a critical contributor to sustainable development. The TVET sector is becoming more influential as its population is growing. ESD – through TVET – aims at developing values, work ethics, lifelong learning skills, occupational knowledge and skills to conduct sustainable practices in the workplace. Additionally, TVET exerts a strong influence in increasing sustainability of communities by increasing employability and by developing entrepreneurial skills that lead to self-employment and job creation.

Conference Objective 2: To Promote International Exchange on ESD

What can we learn from each other?

Good practices that occur in different regions such as the model of ‘broad competencies’ (South Africa); inclusion of values (China); and teacher education for ESD models (Australia and Hong Kong) need to be known to TVET practitioners internationally. UNESCO-UNEVOC can be considered as an appropriate organisational structure to facilitate the process. The results of research projects need to be shared also with a particular emphasis being placed on differences in cultural contexts. However, common challenges need to be identified and these provide a basis for the development of strategic approaches. More intensive exchanges at regional and international levels are required in the following areas: what ESD means for TVET; what are the effective ways to change TVET curricula and training regulations towards ESD; how to include ESD in TVET teacher education and how to qualify trainers in ESD.

Conference Objective 3: To Carry out a Stock-taking of DESD Implementation

What have we achieved so far, what are the lessons learnt?

There is a shared understanding of the role of TVET in ESD and some public awareness and common understanding of the concepts and issues in the area. Several printed materials have been published and a community of practice in TVET and ESD is developing. There are a number of intersectoral and interregional initiatives. However, it is difficult to evaluate their effectiveness. While there is a need to monitor, evaluate and report, there is also a need to develop indicators of success.

Participants underlined that we should move faster and on a larger scale. Strategies and practices should be adapted to the local context, teacher training should be improved, access to existing materials, case studies, pilot projects and papers need to be facilitated. There is a need to improve marketing of ESD in TVET and undertake evaluation and dissemination of good practices.

Conference Objective 4: To Develop Strategies for the Way Ahead

Where do we want to go from here?

Workshop participants emphasised the need to encourage governments to put more effort into developing ESD in TVET and to develop country policies that support this initiative. ESD must be integrated into curricula on a larger scale. It was underlined that a range of stakeholders should be organised to work together to achieve ESD goals in TVET. Partnerships for more action-based activities in TVET should be established. The cooperation with industry, trade and crafts (large-scale industry as well as small and medium-sized enterprises) should be further strengthened. Pilot projects, centres of excellence and capacity development workshops for teachers and trainers should be developed. Participants underlined that more emphasis



must be placed on capacity-building and training of TVET staff. Further teaching materials, e.g. interactive multimedia software in ESD, are strongly needed.

Workshop participants stated that the importance of values in TVET, including ethical and responsible entrepreneurship, should be further emphasised. Moreover, key messages must be identified that can be applied in various cultural contexts through adaptation and interpretation. Lastly, it is important to adjust assessment in TVET to incorporate ESD capabilities.

Workshop rapporteur: Margarita Pavlova, Griffith University, Australia







Project-based Workshops: Experiencing Education for Sustainable Development Live

Struggle with the home trainer until enough electricity has been generated to use the computer for five minutes. Experience what sustainable food provision means, and then try the food straight-away. Be both the captain of a ship on the Rhine and take water samples. Join in the discussion at workshops during a school conference. Or perhaps you would rather learn to recognise plants by their smell in the aromatic garden?

Education for Sustainable Development (ESD) is close to reality and yet implemented in varied forms, as the participants of the World Conference experienced first hand on the afternoon of the second Conference day. ESD projects invited participants to 14 project-based workshops, which took place as excursions in and around Bonn. In their preparation, the organizers of several projects, most of which had been recognised as official projects of the UN Decade of Education for Sustainable Development (DESD) by the German National Committee, met to reflect together on their teaching and learning methods and develop an interactive programme for Conference participants together.

The project-based workshops were a way of opening up the horizon of the Conference programme, to experience what ESD means in practice and to exchange opinions in an interactive way. Participants played games, tried things out and experimented in small groups, then experiencing and living the issues in a meaningful way. The German project representatives presented the context from which the project originated and in which the project would be implemented, but also explained the concept behind the practice. The discussions covered the issue of differing international implementations of ESD and the possibilities for exchanging good practice models. The project-based workshops thereby contributed particularly to the Conference goal of promoting international exchange.



On the research vessel "Burgund"

In thematic cluster 1, "Relevance of ESD for key sustainable development challenges", project-based workshops were held on the topics of water, biological diversity and forests. While Conference participants took water samples on the Rhine using the measurement and research vessel "Burgund" and analysed them during an instruction unit, participants at the Rhine Regional Museum in Bonn learnt how the topic of water can be dealt with in various educational fields.





© Bundeamt für Naturschutz / Sascha Ziehe

Discussing biological diversity at the botanical garden

It became apparent from this that the need to be economical with water use is much clearer to countries which have water provision difficulties than it is in Europe, where it often has to be emphasised and clarified time and again before people really understand it. Water, the vital resource, is given more cultural importance in many countries than it is in Europe.

In the botanical gardens of the University of Bonn, the question of how biological diversity can be brought into education work was discussed, particularly with regard to zoos, museums and botanical gardens. Using the example of coffee and cocoa plants, the production processes can be clearly shown. Emphasis was also placed on traditional knowledge about the effects of plants.

In the Kottenforst forest near Bonn, participants of the project-based workshops on forests went on a tour using a Global Positioning System device, where several learning stations with natural materials and cards were available. Connections between forest education and ESD were discussed using a chest of learning

materials and a system of instruction courses for forest educators. In particular, the discussion brought out the positive nature of focusing on the world as a whole, as it is exemplified by forests, and the possibilities of benefiting educationally directly from nature.

The project workshops in **thematic cluster 2, “Establishing Partnerships for ESD”**, dealt with international cooperation and establishing ESD on a firm footing in higher education, as well as the topic of global justice. In the two workshops on higher education, Conference participants had an exchange with alumni of a German programme from southern countries, who had previously taken part in summer schools on ESD at German universities. The podiums saw lively discussion on how universities are actively facing the challenge of ESD and how they can be restructured along the lines of the principle of sustainable development. It was shown, in particular, that it is not just the question of content of teaching and research that should be addressed, but also alterations to learning processes and university structures. The question of the required change in mentality in the light of the challenges of sustainable development could actually give an important impetus to higher education in the future. In universities, questions of ESD could be integrated into new forms of learning, such as e-learning, right from the outset.

In a project-based workshop on global justice, methods and instruments were presented which can create awareness about injustice and inequality. A covered breakfast table showed how different people from around the world eat breakfast and demonstrated the problem of food shortage and unhealthy nutrition. Participants discussed these issues with the winners of a school competition on biological diversity in a global



© Queraldein / Annette Eberth

Learning in the forest



© Weithungerhilfe / Regina Riepe

Speaking about global justice when looking at breakfast tables from different countries

perspective as well as with schoolchildren and teachers who exchanged views with experts in other countries using chat rooms and internet forums. Participants then slipped playfully into the role of the unemployed, pilots or people with disabilities, and then judged for themselves in which social areas the fictional person could come forward and participate. Participants in the discussions felt that such projects and methods should be further strengthened in the education system. Moreover, it was stressed that in such intercultural learning projects both sides profit from the cooperation.

In **thematic cluster 3, "Capacity-development for ESD"**, the project-based workshops tackled the possibility of learning outside the classroom. For this purpose, a project-based workshop was held on learning with multimedia methods. Two workshops shed light on possibilities for informal learning in exhibitions and nature experience, as well as through experimental learning. Multimedia learning was understood as a cross-disciplinary and self-organised form of learning. Participants could do experiments themselves with flowing water in a learning laboratory. At work stations, self-organised learning on the subjects of water provision, responsibility for water, cultural significance of water, and water quality were presented. Once again, participants had the possibility of do-

ing their own experiments. The work with visualisations and metaphors as well as the understanding of context and interdependency were highlighted as particularly important.

Informal learning in extra curricular learning environments was made visible and tangible in two project-based workshops. What it means to make plants and animals from all parts of the world easy to grasp for children was shown in a world garden, which was set out in the form of a world map. A hidden jackerlope – a legendary Bavarian fantasy creature made out of the body of a hare, with antlers and wings – among several local animals showed that when experiencing nature, you need watchful eyes and not everything can be accepted at face value. On a race course dealing with energy experiences, participants were able to see how long it would take to struggle on a personal trainer to produce enough energy to power a computer, or to see how great the difference was between the electricity consumption of incandescent bulbs and energy saving-bulbs. The fact that you can paint using earth and create colourful pictures with different types of soil was a new experience, and not just for kindergarten children. ESD was made tangible here just as it was with a podcast on environmental management in schools or with an aromatic garden, where the aroma of plants can be smelt first hand. In a museum on the

subject of energy, humankind, nature and technology in the city, possibilities for extra-curricular learning were demonstrated. A climate expedition was also presented which compared live satellite pictures with old recordings, making climate change clearly visible and emotionally tangible.

The project-based workshops in **thematic cluster 4, “ESD and the teaching-learning process”**, placed their emphasis on the educational areas of primary and secondary education, early childhood education and vocational training. The German network of UNESCO Associated Schools presented an internet platform on which schoolchildren from around the world exchanged views on education, the environment and social affairs. Intercultural learning from each other and simultaneous acquisition of media competences, which are at the forefront during daily communication between members, were experienced first-hand by Conference participants on the online platform. With an electric vehicle and a solar cooker, the topic of the internet forum – renewable energies – also came to the limelight on the school’s playground. A guidebook for people with disabilities, produced by the schoolchildren, and an exhibition on organic shrimp farming, dealt with the thematic questions of local and global justice. The programme was rounded off with a sustainable buffet prepared by vocational students of home economics, which had not just a culinary effect.

Discussions were also lively at the preliminary conference to the International Children and Youth Conference for the Environment in 2010 in Brazil. The schoolchildren had worked for a whole week in workshops developing projects on ESD, one of which would be implemented in their school. Together with conference participants, they discussed their preliminary results and the ideas that came out of the interdisciplinary workshops. As a result, both the projects on energy saving and renewable energies that have been implemented so far and new projects on social cooperation and conflict solution were dealt with. The results will be brought into national and international processes to prepare for the Children and Youth Conference in 2010.

ESD in vocational training is important for trainees as well as for the businesses in which they work, as for example saving resources brings with it a direct commercial value. The fact that this can all be fun was also illustrated when vocational students presented a project in which they worked in collaboration with different professional branches to build a house that takes into account sustainability issues. Whole businesses can use ESD to become learning communities.

The Conference participants were able to slip once again into the role of a kindergarten child when they joined in the learning stations at the childcare premises: whether it was producing bread on an open fire or doing handicrafts with stones and natural products, the question here was one’s own initiative. It became clear how important the connection between learning and playing is, not just in early childhood education.

In particular, the combination of learning through practical experience and fun as well as inspiring games were highlighted as good practice in the workshop discussions. Practical learning by trying things out and touching them is always important, particularly outside the classroom in nature and informal education. It was also deemed important to bring the local community on board with projects on the ground.

A strong focus was placed in the discussions on the second half of the DESD, which, it was said, must be used to bring model projects to the wider public. The step from good practice to general practice should be taken. This step can be supported by the development of an international platform for exchanges of good practice. Participants considered that the different institutional framework conditions made it necessary to have different approaches to finding solutions; many educational materials in the past had remained too general to be applicable in each local context. Particular emphasis must also be placed on making training and further education of educators themselves relevant and geared towards practical application in order to make good practice in ESD possible.



© Kindergarten „Hand in Hand“ Oberhonnefeld / Petra Schnell

Adults learning from the youngest

Contact Details of Project-based Workshop Coordinators

I - Relevance of ESD for Key Sustainable Development Challenges

1. Water as a Source of Life: From Traditional Excursions to Streams Towards Innovative Stewardship of Streams by Schools, Bonn

Stewardship of Streams Adenau

Erich-Klausener-Gymnasium Adenau
Mr Winfried Sander
Dr.-Klausener-Str. 43-45, 53518 Adenau, Germany
Umwelt_sander@t-online.de
<http://ekgadenau3.bildung-rp.de>

Neptun – New Partnership for Transnational Understanding and Co-operation in Water Management

u.bus GmbH, Gesellschaft für regionale Entwicklung und europäisches Projektmanagement
Ms Uta Voigt
Gormannstrasse 14, 10119 Berlin, Germany
UtaVoigt@ubus.net
www.neptun-project.org

Schools for a Living Neckar

NABU Umweltbildung
Ms Simone Janas
NABU-Wiesloch@nabu-wiesloch.de
www.nabu-wiesloch.de

2. Water Quality and Research – the Ship MS Burgund as a Floating Classroom, MS Burgund on the R-River Rhine

Research Ship MS “Burgund”

Ministerium für Umwelt, Forsten und Verbraucherschutz
Rheinland-Pfalz
Ms Bettina Thiel
Kaiser-Friedrich-Straße 1, 55116 Mainz, Germany
Bettina.Thiel@mufv.rlp.de
www.mufv.rlp.de

3. Biological Diversity and Education for Sustainable Development, Bonn University Botanic Gardens, Bonn

Botanical Garden Bonn

Ms Karoline Friedrich
Meckenheimer Allee 171, 53115 Bonn, Germany
k.friedrich@uni-bonn.de
www.botgart.uni-bonn.de

Federal Agency for Nature Conservation

Fachgebiet II 1.2 Gesellschaft, Nachhaltigkeit, Tourismus und Sport

Ms Christine Schell
Konstantinstr. 110, 53179 Bonn, Germany
Christiane.Schell@BfN.de
www.bfn.de

Inwent – Capacity Building International

Mr Kayode Salau
Wielinger Str. 52, 82340 Feldafing, Germany
kayode.salau@Inwent.org
www.Inwent.org

Environmental Station Reichelshof

Ms Christa Fritzsche
Karl-Götz-Str. 24, 97424 Schweinfurt, Germany
fritzsche@bsiev.de
<http://umweltstation-reichelshof.de>

4. Learning Sustainability in Forests and Nature - Examples of Good Practice in Germany, German Hunting and Conservation Association, Bonn

Querwaldein

Ms Annette Eberth, Ms Alexa Schiefer
Scherfgingstr. 48, 50937 Köln, Germany
Annette.eberth@querwaldein.de;
alexa@querwaldein.de
www.querwaldein.de

German Hunting and Conservation Association

Mr Ralf Pütz
Johannes-Henry-Str. 26, 53113 Bonn, Germany
r.puetz@jagdschutzverband.de
www.jagdschutzverband.de

ESD in Forest Education

Institut für Forstpolitik, Universität Freiburg, Germany
Ms Beate Kohler
Tennenbacher Straße 4, 79106 Freiburg
Institut für Naturwissenschaften und Technik,
Pädagogische Hochschule Ludwigsburg
Mr Armin Lude
Reuteallee 46, 71634 Ludwigsburg, Germany
Beate.kohler@ifp.uni-freiburg.de
lude@ph-ludwigsburg.de

Forest Does School

Landesforst Mecklenburg-Vorpommern,
Forstamt Schönberg
Mr Peter Rabe
An der B 105, 23936 Gostorf, Germany
Peter.Rabe@lfoa-mv.de
www.wald-mv.de



II - Building Partnerships to Promote ESD

5. From Research to Action: Implementing ESD in Higher Education, German Academic Exchange Service, Bonn; and

6. ESD and the Socio-economic Dimensions: a Challenge Towards Changing Behaviour and Consumption Patterns, German Academic Exchange Service, Bonn

German Academic Exchange Service

Mr Cay Etzold
Kennedyallee 50, 53175 Bonn, Germany
etzold@daad.de
www.daad.de

7. How to Approach Global Justice? Methods and Instruments Enhancing Global Competences and Understanding, Inwent – Capacity Building International, Bonn

Chat of Worlds

Inwent – Internationale Weiterbildung und Entwicklung gGmbH
Ms Belinda Knörr
Wallstraße 30, 40213 Düsseldorf, Germany
belinda.knoerr@inwent.org
www.inwent.org

Projects on Biodiversity

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)
Ms Nikola Dzembritzki
Postfach 5180, 65726 Eschborn, Germany
nikola.dzembritzki@gtz.de
www.gtz.de

Disability and Development Cooperation

Ms Gabriele Weigt
Wandastr. 9, 45136 Essen, Germany
info@bezev.de
www.bezev.de

World Breakfast

Deutsche Welthungerhilfe
Ms Angela Tamke
Friedrich-Ebert-Str. 1, 53173 Bonn, Germany
angela.tamke@welthungerhilfe.de
www.welthungerhilfe.de

Game: Forwards!

Deutscher Entwicklungsdienst
Ms Monika Ziebell
Tulpenfeld 7, 53113 Bonn, Germany
Monika.Ziebell@ded.de
www.ded.de

III - Capacity Development for ESD

8. ESD and ICT: Multimedia Learning, Evangelische Akademie im Rheinland, Bonn

Water Learning Laboratory

Creative Taten
Mr Günter Klarner
Lyngsbergstrasse 95, 531177 Bonn, Germany
Gunter.klarner@creta.de
www.creta.de

Learning Islands

Transfer-21 Sachsen-Anhalt
Mr Holger Mühlbach
Riebeckplatz 9, 06110 Halle (Saale), Germany
Holger.Muehlbach@lisa.mk.sachsen-anhalt.de
www.modellversuche.bildung-lsa.de/transfer21/index.htm

9. Non-formal Education for Sustainable Development through Experiential Learning, Finkens Garden, Cologne

Finkens Garden

Mr Bernd Kittlass
Friedrich-Ebert-Straße 49,
50996 Köln (Rodenkirchen), Germany
finkensgarten@netcologne.de
www.stadt-koeln.de/6/gruen/finkens-garten

Environmental Education at Primary School

Gesellschaft für Umweltbildung Baden-Württemberg
Mr Bernd Schlag
Prankelstr. 68, 69469 Weinheim, Germany
umweltbildung@t-online.de
www.gub-bw.de

World Garden Biberach

BUND Biberach
Ms Birgit Eschenlohr
Bismarckring 5, 88400 Biberach, Germany
bund.biberach@tesionmail.de
www.bund.de

Orientation towards Experience within ESD

Mr Ulrich Holzbaur
City of Aalen, Marktplatz 30, 73430 Aalen, Germany
ulrich.holzbaur@htw-aalen.de
www.aalen.de

Experience of Energy and Climate Protection through Energy Saving

Gymnasium am Römerkastell Alzey
Mr Lutz Quester
Bleichstr. 15, 55232 Alzey, Germany
Lutzquester@berater.bildung-rp.de
http://roeka-alzey.de/

10. Non-formal Education for Sustainable Development in Visitor Centres, Exhibitions and Nature Experience Activities, Naturgut Ophoven, Leverkusen

NaturGut Ophoven

Mr Hans-Martin Kochanek
Talstraße 4, 51379 Leverkusen, Germany
h.m.kochanek@naturgut-ophoven.de
www.naturgut-ophoven.de

International Wadden Sea School

Ms. Lisa Dobutowitsch
Hafenstraße 3, 25813 Husum, Germany
l.dobutowitsch@schutzstation-wattenmeer.de
www.schutzstation-wattenmeer.de

Climate Excursion

Germanwatch e.V
Mr Stefan Rostock
Kaiserstr. 201, 53113 Bonn, Germany
rostock@germanwatch.org
www.germanwatch.org

IV - ESD and the Teaching-learning Process

11. UNESCO Associated Schools Working Towards ESD, Robert Wetzlar Vocational School, Bonn

National Coordination UNESCO Associated Schools Project

Deutsche UNESCO-Kommission
Mr Volker Hörold
Schillerstr. 59, 10627 Berlin, Germany
hoerold@asp.unesco.de
www.ups-schulen.de

Robert-Wetzlar-Berufskolleg

Ms Gabriele Pilz
Kölnstr. 229, 53117 Bonn, Germany
gabrielepilz@web.de
http://rwb.bonn.de

SolarNet International

Schillergymnasium Münster
Mr Christoph Lammen
Gertrudenstr. 5, 48149 Münster, Germany
christoph.lammen@googlemail.com
www.schillergymnasium-muenster.de

Comenius-Kolleg Mettingen

Ms Gerborg Meister
Sunderstr. 15/17, 49497 Mettingen, Germany
gerborgm@web.de
www.comenius-kolleg.de

12. Pre-conference for the Children and Youth International Conference for the Environment (Brazil 2010), Emilie Heyermann Secondary School, Bonn

Emilie-Heyermann Secondary School

Emilie Heyermann-Realschule Bonn
Mr Michael Pacyna
Robert-Koch-Straße 36, 53115 Bonn, Germany
r850rpac@unitybox.de
http://ehs.schulen.bonn.de

13. Education for Sustainable Development in Life and at Work, House of NICA (sustainability within chemical vocational training), Hürth

German Federal Institute for Vocational Education and Training

Ms Dagmar Winzier
Robert-Schuman-Platz 3, 53175 Bonn, Germany
winzier@bibb.de
www.bibb.de

House of NICA

Chemiepark Knapsack
Mr Rainer Overmann
Industriestrasse, 50351 Hürth, Germany
rainer.overmann@rhein-erft-akademie.de
www.nachhaltige-berufsbildung.de

14. Starting strong: Education for Sustainable Development in early childhood, Kindergarten "Hand in Hand", Oberhonnefeld

Kindergarten „Hand in Hand“, Oberhonnefeld

Ms Petra Schnell
Hauptstraße 15, 56587 Oberhonnefeld, Germany
petraschnell1@gmx.net
www.oberhonnefeld.de/kindergarten.html

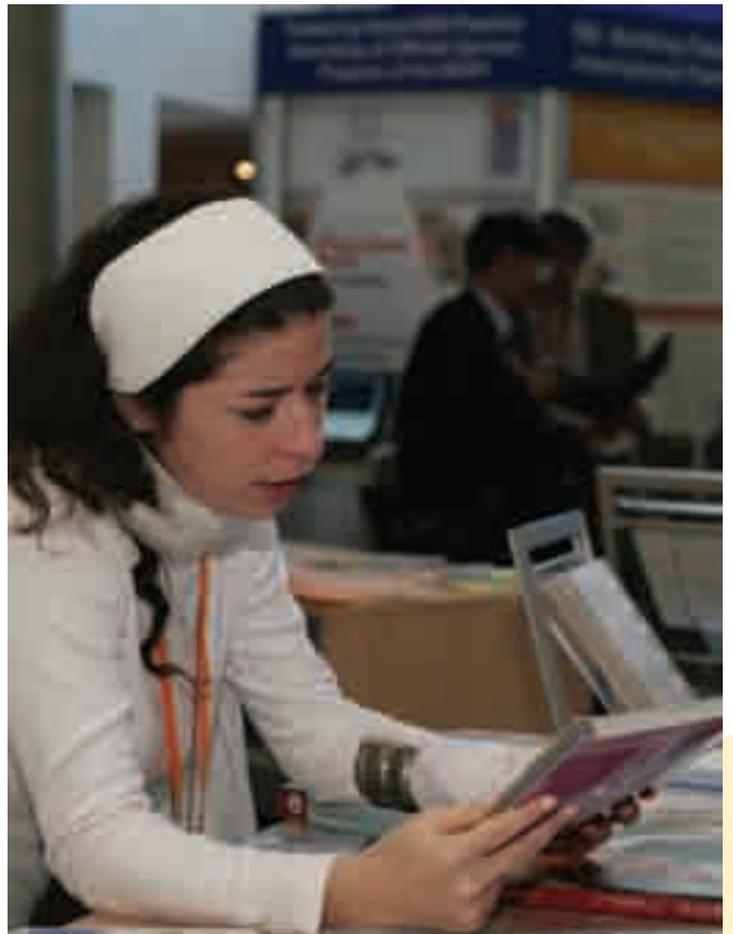
Landeszentrale für Umweltaufklärung Rheinland-Pfalz

Mr Roland Horne
Kaiser-Friedrich-Str. 1, 55116 Mainz, Germany
Roland.Horne@mufv.rlp.de
www.umdenken.de

Regional Confederation for the Protection of Birds Bavaria

Mr Klaus Hübner
Eisvogelweg 1, 91161 Hilpoltstein, Germany
k-huebner@lbv.de
www.lbv.de





ESD Projects Exhibition

At the Conference venue, an exhibition showcased 25 projects on Education for Sustainable Development (ESD). Five projects per world region were selected from a large number of submissions. All types of educational settings were represented. The projects were selected in consultation with the International Advisory Group of the World Conference.

The following projects exhibited their activities at the Conference venue:

Africa

Chanuka Express, Kenya

This pro-active youth-to-youth mobile outreach programme offers practical skills to empower young people to embrace positive attitudes to improve health, protect themselves and their environment as well as to create their own more peaceful and productive lives.

Contact: Ms Diana Wangui Maigwa, Ms Susan Scull-Carvalho
Jacaranda Designs Ltd.
P.O. Box 1202 00606
Nairobi, Kenya
marketing@jacaranda-africa.com;
susanscarvalho@jacaranda-africa.com

The San Development Programme – an Integrated Approach to Education; in combination with Sustainable Living in an Arid Country – Practical Evidence from two Innovative Projects, Namibia and International

While the San Development Programme is focusing on the educational and social needs of the marginalized San People, the Habitat Research and Development Centre is the focal point for the promotion of sustainable human settlements, and the Namib Desert Environmental Education Trust is conducting environmental education programmes.

Contact: Mr Andreas Wienecke,
Mr Boyson Ngondo
UNESCO Windhoek Cluster Office
P.O. Box 24519
Windhoek, Namibia
awienecke@hrdc-na.iway.na, b.ngondo@unesco.org
<http://www.unesco.org/windhoek>

Mainstreaming Environment and Sustainability into African Universities (MESA), South Africa and international

MESA is a partnership programme to mainstream environment and sustainability concerns into the teaching, research, community engagement and management of universities in Africa including an ESD innovations short course, seminars for university leaders, a biennial conference and pilot programmes linking universities, communities, business and industry in sustainable development partnerships.

Contact: Muchaiteyi Togo, Ms Akpezi Ogbuigwe,
Ms Heila Lotz-Sisitka
Rhodes University, Environmental Education and Sustainability Unit
P.O. Box 94
Grahamstown, South Africa
muchatogo@yahoo.com;
Akpezi.Ogbuigwe@unep.org, h.lotz@ru.ac.za
www.unep.org/training

SADC Regional Environmental Education Programme, International (SADC Member States)

This is a project of SADC, implemented by WESSA. The overall objective is to enable environmental education practitioners in the SADC region to strengthen environmental education processes for equitable and sustainable environmental management choices through training, policy support, materials development, research and networking opportunities through communities of practice.

Contact: Mr Tichaona Pesanayi
SADC Regional Environmental Education Programme (REEP)
c/o The Wildlife and Environment Society of South Africa (WESSA)
P.O. Box 394
Howick 3290, South Africa
tich@wessa.co.za, mumsie@wessa.co.za
www.sadc-reep.org.za, www.wessa.org.za,
www.sadc.int



Gaia Education, Design for Sustainability, International, presented with focus on Eco-villages in Senegal

The project aims at developing courses on sustainable community design and development and is led by a circle of experienced eco-village educators with academic and professional backgrounds in a wide range of disciplines. It has developed the Design for Sustainability Curriculum used in programmes both virtually and in eco-villages.

Contact: Ms May East
Gaia Education
The Park, Findhorn
Forres Scotland IV36 3TZ
may.east@gaiaeducation.net
www.gaiaeducation.net

Arab States

SUMAMAD - Sustainable Management of Marginal Drylands, Egypt and China, Iran, Jordan, Pakistan, Tunisia, Syria, Uzbekistan

This international research programme studies sustainable management and conservation of marginal drylands in northern Africa and Asia in order to improve alternative livelihoods of dryland dwellers, to reduce vulnerability to land degradation in marginal lands through rehabilitation efforts of degraded lands and to improve productivity through identification of wise practices.

Contact: Ms Boshra Salem, Mr Thomas Schaaf
Department of Environmental Sciences, Faculty of Science, University of Alexandria
21511 Moharram bey
Alexandria, Egypt
boshra.salem@dr.com, T.Schaaf@unesco.org
www.unesco.org/mab/ecosyst/drylands/Sumamad.shtm

Culture of Care & Water for Life; in Egypt, Iraq, Jordan, Lebanon, Oman Sultanate, Palestine Authorities and International

The project mobilized school students and teachers in 23 countries to perform local actions and students' field studies within the Life-Link ESD ethics of Care for Myself, Care for Others, Care for Nature. Each participating school communicates its results with two "Dialogue-Schools" in other countries. An extended project is planned.

Contact: Mr Hans Levander
Life-Link Friendship-Schools
Uppsala Science Park
751 83 Uppsala, Sweden
friendship-schools@life-link.org
www.life-link.org

Kids Iso 14000 Programme in Kuwait, Kuwait and International

The programme aims at promoting environmental awareness among students, enhancing cooperation between them and seeks to have them implement a Plan-Do-Check-Act (PDCA) cycle in their own homes to measure aspects such as water and energy consumption.

Contact: Ms Maryam al Wateed, Mr Takaya Kawabe
International Art & Technology Cooperation Organization (ArTech)
Tomigaya 1-39-2, Suite 104
Shibuya-ku, Tokyo, 151-0063, Japan
maryama154@yahoo.com, kawabe@artech.or.jp
www.iso.org/iso/kidsiso_home.html

Rashid and Dana the Recyclers, International

The "Rashid and Dana the Recyclers" guide, and "The Arab Recycling Initiative" website are based on the motto "Reduce, Reuse, Recycle" and aim to provide statistics, relevant addresses, and country specific information to raise awareness and capacity-building for young people based on education into the importance of waste management.

Contact: Mr Benno Boer, Mr Mark Sutcliffe,
Ms Deena Al Abdulla
UNESCO Office Doha
P.O. Box 3945
Doha, Qatar
b.boer@unesco.org, m.sutcliffe@unesco.org,
dndna@hotmail.com
www.rashid-and-dana.org

YouthXchange: Adopting Sustainable Lifestyles, International presented with focus on Arab States

The toolkit is designed to assist in raising awareness on sustainable consumption, to empower youth to put theory into practice and it refers to the notion of lifestyles rather than consumption in order to include healthy eating, sex trade or media literacy as significant factors in developing consumer awareness.

Contact: Ms Morgan Stecker
UNEP Division of Technology Industry and Economics
15, rue de Milan
75441 Paris, France
Morgan.Stecker@unep.org
www.youthxchange.net

Asia and the Pacific

Global Communities for Sustainability, Australia and India; in combination with Samvardhan – Nurturing Nature and People, India

Samvardhan is a project from India promoting sustainable development through community entrepreneurship. By developing the cadre of community entrepreneurs the project aims at improving the quality of life of indigenous people and focusing on access to safe water, improving livelihoods and enhancing effective primary education.

Contact: Mr Atul Pandya
Centre for Environmental Education (CEE) India
Thaltej Tekra
Ahmedabad 380054, Gujarat, India
atul.pandya@ceeindia.org
www.ceeindia.org

Water School for a Living Yangtze, China

The programme seeks to foster environmental stewardship in selected watersheds of the Yangtze through education and community outreach and to create opportunities for empowerment and action, promote awareness and understanding of the importance of the resource water and the principles of wise and sustainable water management.

Contact: Mr Duojie Caidan, Ms Liu Yunhua
Shangri-la Institute for Sustainable Communities
A-709 SOHO New Town, No 88 Jianguo Road,
Chaoyang District
Beijing 100022, China
duojie@shangrilainstitute.org,
yhliu@shangrilainstitute.org
www.shangrilainstitute.org/waterschool

Reuse Young Coconut Husk, Malaysia

The project seeks to use the waste of young coconuts husks after its pulp is being scraped and the water is used as a drink since the skin of young coconuts can be used as a substitute for plastic bags during plant propagation and growing seedlings.

Contact: Ms Rosnah Alias
Institut Perguruan Kuala Terengganu
Batu Rakit
21030 Kuala Terengganu, Malaysia
rosnah1956@yahoo.co.uk

Untouched World Charitable Trust, New Zealand

The clothing brand is using an inclusive staff education programme that increases understanding of sustainability and provides concrete examples of actions being taken; the charitable trust provides young adults with learning experiences, developing practical, intellectual and life skills to maximise their potential to lead the way in achieving a sustainable future.

Contact: Ms Peri Drysdale
Untouched World Charitable Trust
P.O. Box 29068, Fendalton
Christchurch 8540, New Zealand
peri.drysdale@snowypeak.com
www.untouchedworld.com

Small is Beautiful, Tuvalu

Tuvalu's citizens are threatened with becoming the planet's first entire nation of environmental refugees. The project therefore aims at assisting Tuvaluans to survive as a nation, and if possible, to allow them to remain on their ancestral land through raising awareness of sustainable development solutions and initiatives.

Contact: Ms Fanny Héros
Alofa Tuvalu
30 rue Philippe Hecht
75019 Paris, France
fanny@alofatuvalu.tv
www.alofatuvalu.tv

Europe and North America

Dalhousie University College of Sustainability, Canada

The College of Sustainability provides an interdisciplinary forum for collaborative teaching and learning to address global sustainability issues, with an approach that cuts across disciplinary boundaries to provide a common place at the centre of the community. Its Major in Environment, Sustainability and Society is available in a wide range of Bachelors degrees.

Contact: Mr Steven Mannell
College of Sustainability
Dalhousie University
P.O. Box 1000
Halifax, NS B3H 4J1, Canada
steven.mannell@dal.ca
http://sustainability.dal.ca



Memo'Risks, France in combination with World Disaster Reduction Campaign "Disaster Risk Reduction Begins at School", International, and Digital Database on Disaster Risk Reduction Education Materials, International

Memo'Risks teaches a local and practical disaster reduction education through associating the city and the educational institution in a global project for communication upon major risks and couples risk education among the children with risk awareness among the population.

Contact: Mr Pierre-Marie Sarant, Mr Olivier Schick,
Ms Christel Rose
AFPCN
C/O ENGREF
19, Avenue du Maine
75732 Paris Cedex 15, France
United Nations Inter-Agency Secretariat of the International Strategy for Disaster Reduction (UN/ISDR)
International Environment House II
7-9 Chemin de Balexert
1219 Chatelaine, Geneva 10, Switzerland
pmsarant@gmail.com, olivier.schick@numericable.fr,
rosec@un.org
www.prevention2000.org/memorisks,
www.unisdr.org

Fostering Good ESD Practice through Awarding the Status of Official German Projects of the UN Decade of ESD, Germany

The German National Committee for the UN Decade, which was instituted by the German Commission for UNESCO, awards the status of Official German Projects of the UN Decade to successful and innovative projects in order to highlight and encourage good practice; the aims are to raise the visibility of successful ESD projects, to foster innovative approaches, to promote an integrative vision of ESD and to give recognition to practitioners.

Contact: Ms Heidi Consentius
German Commission for UNESCO
Berliner Arbeitsstelle beim Vorsitzenden des Nationalkomitees
Arnimallee 9
14195 Berlin, Germany
consentius@esd.unesco.de
www.bne-portal.de/english

ISE: Building the Capacity for International Partnership, Latvia and International

Aiming to reorient education in general and teacher education in particular towards sustainability, the ISE designs study programs in education integrating sustainable development and hold annual conferences on "Sustainable Development – Culture – Education" in different European countries in order to facilitate networking.

Contact: Ms Ilga Salite, Ms Anita Pipere,
Ms Dzintra Ilisko
Institute of Sustainable Education (ISE)
Daugavpils University, Parades street 1
Daugavpils 5400, Latvia
ilga.salite@du.lv, anita.pipere@du.lv, dzintra.ilisko@du.lv
www.ise-lv.eu

CO2nnect – CO2 on the Way to School, Norway and International

CO2nnect is an international ESD school campaign about engaging schools in an internet-based activity in which schools, researchers and local decision-makers cooperate on the topic of CO2 emissions from local transport registering CO2-emissions on the way to school and reflecting on improvements to be taken.

Contact: Ms Astrid Sandås
Directorate of Education and Training, P.Box 2924,
Tøyen, N-0608 Oslo
asa@udir.no
Ms Faye Benedict
The Norwegian University of Life Sciences, P.Box 5003,
N-1432 Ås
faye.benedict@umb.no
www.co2nnect.org

Latin America and the Caribbean

Spring's Seeds. Exercising the Citizenship since Childhood, Brazil

The aim of the project is to create conditions for the exercise of citizenship since childhood, allowing children and adolescents to be citizens to have a voice and actively participate in the construction of the school and the city where they live, contributing to become an educator, socially equitable and sustainable.

Contact: Ms Julia Tomchisky
Instituto Paulo Freire
Rua Cerro Cora, 550 cj.22 2o. Andar
CEP 05061-100 Sao Paulo, Brazil
juliatom@paulofreire.org
www.paulofreire.org

Sistema Nacional de Certificación Ambiental de Establecimientos Educativos (SNCAE), Chile

The SNCAE provides indicators of environmental quality for three areas of education: teaching; management and scope of relations with the environment, working from a holistic perspective, cross the environmental issues arising from local environments, generating the knowledge and action through the contextualization of educational content.

Contact: Mr Roberto Gonzalez
National Commission of the Environment of Chile (CONAMA)
Teatinos 254/258
Santiago, Chile
rhgonzalez@conama.cl
www.conama.cl/educacionambiental

National Programme of Environmental Education, Columbia

The National Program of Environmental Education describes the strategy of the Colombian government for the institutionalization of environmental education in Colombia at both local and national level aiming at developing a conceptual framework and methodology which shall guide environmental education.

Contact: Ms Maritza Torres Carrasco
Ministry of Education Columbia
Calle 43 No 57-14
CAN Bogotá D.C., Columbia
MTorres@mineduacion.gov.co,
NTorres@mineduacion.gov.co
www.mineduacion.gov.co

Education, Protection and Solution of Environmental Problems and Prevention of Natural Disasters, Cuba

The initiative aims at integrating education on environmental protection and disaster prevention into the Cuban educational system with educational projects designed for teachers and community leaders starting from a survey of the environmental problems of communities in the area.

Contact: Mr Orestes Valdés
Ministry of Education Cuba
Calle 3era y 16. Miramar. Municipio Playa
C.P 11 300 La Habana, Cuba
ovaldes@rimed.cu, ovaldesvaldes@yahoo.es,
educamb@dct.rimed.cu
http://ftp.mined.rimed.cu, http://ftp.rimed.cu
/02_Areas

Sandwatch Project, International

Sandwatch seeks to modify the lifestyle and habits of children, youth and adults on a community-wide basis and to develop awareness of the fragile nature of the marine and coastal environment and the need to use it wisely.

Contact: Ms Jane Taurarii, Mr Paul Diamond
Cook Islands Ministry of Education
P.O. Box 97
Rarotonga, Cook Islands
jtaurarii@education.gov.ck, pdiamond@nevis-nhcs.org
www.sandwatch.org





Special Events

Special events took place at the Conference venue and in workshop rooms during lunch hours and in the evening. Topics of special events were closely linked to the four conference objectives and had a global or regional focus. They were generally organized by institutions other than the Conference organizers.

31 March 2009

- **Special Event "Quality Education, Equity and Sustainable Development: A Holistic Vision through UNESCO's four World Education Conferences 2008-2009"**

Organizer: UNESCO Education Sector

- **Special Event "Green at Fifteen – Benchmarking the Successful Generation of Environmental Knowledge and Attitudes in OECD Countries"**

Organizer: Organisation for Economic Co-operation and Development (OECD)

1 April 2009

- **Special Event "The United Nations and ESD: Walking the talk"**

Organizer: Inter-Agency Committee (IAC) on the United Nations Decade of Education for Sustainable Development

- **Special Event "Regional Centres of Expertise for Education for Sustainable Development – Lessons and Ways Ahead"**

Organizer: United Nations University Institute of Advanced Studies (UNU-IAS)

- **Special Event "Human Rights Education – Key to Sustainable Development"**

Organizer: Anna Lindh Euro-Mediterranean Foundation

- **Special Event: "Promotion of (Early) Education in STEM Fields as a Contribution by a Corporate Foundation to Education for Sustainable Development"**

Organizers: Deutsche Telekom AG, Deutsche Telekom Foundation

2 April 2009

- **Special Event "The Forgotten Priority: Promoting Gender Equality in ESD"**

Organizer: UNESCO Asia-Pacific Regional Bureau for Education, Bangkok

- **Special Event "Synergies between Intangible Cultural Heritage and ESD"**

Organizer: Austrian Commission for UNESCO/National Agency for the Intangible Cultural Heritage

- **Special Event "Integrating the Values and Principles of Sustainability into Education; the Promise of the Earth Charter"**

Organizer: Earth Charter International



Participants

The World Conference on Education for Sustainable Development brought together 900 participants from 147 countries, among them 49 Ministers and Deputy-Ministers as well as heads of UN agencies. Participants included representatives of UNESCO Member States as well as Associate Members and Observers, UN agencies, civil society organizations, education institutions, youth, and the private sector, as well as individual experts.

Afghanistan	Denmark	Latvia	Serbia
Algeria	Dominican Republic	Lebanon	Seychelles
Angola	Ecuador	Lesotho	Sierra Leone
Argentina	Egypt	Liberia	Singapore
Armenia	El Salvador	Libyan Arab Jamahiriya	Slovakia
Australia	Equatorial Guinea	Lithuania	Slovenia
Austria	Eritrea	Luxembourg	South Africa
Azerbaijan	Estonia	Madagascar	Spain
Bangladesh	Ethiopia	Malawi	Sri Lanka
Belarus	Fiji	Malaysia	Sudan
Belgium	Finland	Maldives	Suriname
Benin	France	Mali	Swaziland
Bhutan	Gabon	Mauritania	Sweden
Bolivia	Gambia	Mauritius	Switzerland
Bosnia and Herzegovina	Georgia	Mexico	Syrian Arab Republic
Botswana	Germany	Monaco	Tajikistan
Brazil	Ghana	Mongolia	Thailand
Brunei Darussalam	Greece	Morocco	Togo
Bulgaria	Guinea	Mozambique	Tunisia
Burkina Faso	Haiti	Namibia	Turkey
Cambodia	Holy See	Nepal	Uganda
Cameroon	Honduras	Netherlands	Ukraine
Canada	Hungary	New Zealand	United Arab Emirates
Chad	Iceland	Nigeria	United Kingdom of Great Britain and Northern Ireland
Chile	India	Norway	Ireland
China	Indonesia	Oman	United Republic of Tanzania
Colombia	Iran (Islamic Republic of)	Pakistan	United States of America
Comores	Ireland	Palestine	Uruguay
Congo	Israel	Peru	Vanuatu
Cook Islands	Italy	Philippines	Venezuela (Bolivarian Republic of)
Costa Rica	Jamaica	Poland	Viet Nam
Côte d'Ivoire	Japan	Portugal	Yemen
Croatia	Jordan	Qatar	Zambia
Cuba	Kenya	Republic of Korea	Zimbabwe
Cyprus	Kuwait	Russian Federation	
Czech Republic	Kyrgyzstan	Saint Kitts and Nevis	
Democratic Republic of the Congo	Lao People's Democratic Republic	Saudi Arabia	
		Senegal	



International Advisory Group

An International Advisory Group of 14 renowned experts on Education for Sustainable Development advised the Conference organizers on the programme and the format of the Conference, details of Conference objectives and expected outcomes, as well as procedures for stakeholder involvement in the preparatory process and other issues relevant to the preparation of the World Conference. Members of the International Advisory Group met twice, from 21 to 22 April 2008 at the German Federal Ministry of Education and Research in Berlin, Germany, and from 30 to 31 October 2008 at UNESCO Headquarters in Paris, France, and contributed to numerous additional electronic consultations.



Osamu Abe
Chairperson of the Japan
Council on the DESD
(ESD-J)



Pascal Houenou
Professor at Faculty of
Sciences and Environment,
University of Abobo-Adjamé,
Côte d'Ivoire



Lorna Down
Lecturer at the Institute of
Education, University of the
West Indies, Jamaica



Charles Hopkins
UNESCO Chair in Education
for Sustainable Development,
York University, Canada



Moacir Gadotti
Founder and President of
Advisory Council of the Paolo
Freire Institute, Sao Paulo,
Brazil



Carl Lindberg
UNESCO High-level Panel for
the DESD, Sweden



Gerhard de Haan
Chairperson of the German
National Committee for the
DESD; Free University of
Berlin, Germany



Heila Lotz-Sisitka
Chair of Environmental
Education and Sustainability,
Rhodes University, South
Africa

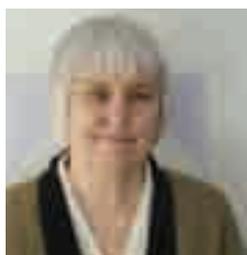
International Advisory Group / Task Force



Akpezi Ogbuigwe
Head of Environmental
Education and Training,
United Nations Environment
Programme



Konai Helu Thaman
UNESCO Chair in Teacher
Education and Culture,
University of the South
Pacific, Fiji



Pamela J. Puntenney
Co-Chair of Education Caucus
for the UN Commission of
Sustainable Development



Liu Yunhua
Director of the Shangri-la
Institute for Sustainable
Communities, China



Michel Ricard
Former Chairman of the
French Committee for the
DESD, France



Rami Ahmed Zurayk
Professor, Environmental
Program, American University
Beirut, Lebanon

World Conference Task Force



I. to r. Katja Römer,
Alexander Leicht,
Lina Franken,
Mark Richmond,
Olivier Laboulle,
Aline Bory-Adams,
Alexander Renner
(missing: Bernard
Combes)



Bonn Declaration

The Bonn Declaration on Education for Sustainable Development was adopted by consensus in the closing plenary.

We, the participants gathered at the UNESCO World Conference on Education for Sustainable Development held in Bonn, Germany on 31 March to 2 April 2009 issue the following statement and call for action:

1. Despite unprecedented economic growth in the 20th century, persistent poverty and inequality still affect too many people, especially those who are most vulnerable. Conflicts continue to draw attention to the need for building a culture of peace. The global financial and economic crises highlights the risks of unsustainable economic development models and practices based on short-term gains. The food crisis and world hunger are an increasingly serious issue. Unsustainable production and consumption patterns are creating ecological impacts that compromise the options of current and future generations and the sustainability of life on Earth, as climate change is showing.
2. A decade into the 21st century, the world faces substantial, complex and interlinked development and lifestyle challenges and problems. The challenges arise from values that have created unsustainable societies. The challenges are interlinked, and their resolution requires stronger political commitment and decisive action. We have the knowledge, technology and skills available to turn the situation around. We now need to mobilise our potential to make use of all opportunities for improving action and change.
3. The impacts of unsustainable development, priorities, responsibilities and capacity differ between regions and between developing and developed countries. All countries will need to work collaboratively to ensure sustainable development now and in the future. Investment in education for sustainable development (ESD) is an investment in the future, and can be a life-saving measure, especially in post-conflict and least developed countries.
4. Building on the Jomtien, Dakar and Johannesburg promises, we need a shared commitment to education that empowers people for change. Such education should be of a quality that provides the values, knowledge, skills and competencies for sustainable living and participation in society and decent work. The Education for All agenda underlines that the availability of basic education is critical for sustainable development. It similarly emphasises pre-school learning, education for rural people and adult literacy. Achievements in literacy and numeracy contribute to educational quality, and will also be critical to the success of ESD.
5. Through education and lifelong learning we can achieve lifestyles based on economic and social justice, food security, ecological integrity, sustainable livelihoods, respect for all life forms and strong values that foster social cohesion, democracy and collective action. Gender equality, with special reference to the participation of women and girl children in education, is critical for enabling development and sustainability. Education for sustainable development is immediately necessary for securing sustainable life chances, aspirations and futures for young people.

Education for sustainable development in the 21st century

6. Education for sustainable development is setting a new direction for education and learning for all. It promotes quality education, and is inclusive of all people. It is based on values, principles and practices necessary to respond effectively to current and future challenges.

7. ESD helps societies to address different priorities and issues inter alia water, energy, climate change, disaster and risk reduction, loss of biodiversity, food crises, health risks, social vulnerability and insecurity. It is critical for the development of new economic thinking. ESD contributes to creating resilient, healthy and sustainable societies through a systemic and integrated approach. It brings new relevance, quality, meaning and purpose to education and training systems. It involves formal, non-formal and informal education contexts, and all sectors of society in a lifelong learning process.
8. ESD is based on values of justice, equity, tolerance, sufficiency and responsibility. It promotes gender equality, social cohesion and poverty reduction and emphasises care, integrity and honesty, as articulated in the Earth Charter. ESD is underpinned by principles that support sustainable living, democracy and human well-being. Environmental protection and restoration, natural resource conservation and sustainable use, addressing unsustainable production and consumption patterns, and the creation of just and peaceful societies are also important principles underpinning ESD.
9. ESD emphasises creative and critical approaches, long-term thinking, innovation and empowerment for dealing with uncertainty, and for solving complex problems. ESD highlights the interdependence of environment, economy, society, and cultural diversity from local to global levels, and takes account of past, present and future.
10. Linked to different needs and the concrete living conditions of people, ESD provides the skills to find solutions and draws on practices and knowledge embedded in local cultures as well as in new ideas and technologies.
11. During the first five years of the UN Decade of Education for Sustainable Development, led and co-ordinated by UNESCO, many countries have made progress in implementing ESD and have designed innovative policy frameworks. A number of UN agencies, NGOs, regional bodies, and partner networks are engaged in concrete activities that support specific areas of ESD. Many people and organisations are committed and engaged in action. Efforts towards better understanding, promotion, implementation and assessment of the quality of ESD are underway. A global monitoring and evaluation framework has been designed. Efforts at the global level have been complemented by regional strategies and initiatives.
12. We recognise that education is a significant factor in improving human well-being. We now have the knowledge and experience available to significantly improve the contents, methods and purposes of education. We know how to begin re-orienting education systems to emphasise lifelong learning. Through ESD we are learning how to improve links between formal, non-formal and informal education. We know the importance of strengthening and sharing knowledge of educational change processes.
13. Science has provided us with a better knowledge of climate change and of the Earth's life-support systems; it has gathered significant knowledge about HIV and AIDS, malaria, tuberculosis, heart diseases, and other serious health challenges. We know more about natural systems, and human impacts on them, and the ways that biodiversity supports our well-being. We know that current economic thinking has to change, and that there is a need to avoid unsustainable production and consumption and promote and support the emergence of 'sustainably developed' countries. Social science has provided insight into ethical, cultural, cognitive and affective aspects of human development, as well as sociologies of change.
14. We now need to put this knowledge into action. This is especially important to strengthen and extend the outcomes of the UN DESD in the next five years, but also to ensure longer term implementation of ESD.

Progress in the UN Decade of Education for Sustainable Development

11. During the first five years of the UN Decade of Education for Sustainable Development, led and co-ordinated by UNESCO, many countries have made progress in implementing ESD and have designed innovative policy frameworks. A number of UN agencies, NGOs, regional bodies, and partner networks are engaged in concrete activities that support specific areas of ESD. Many people and organisations are committed and engaged in action. Efforts towards better understanding, promotion, implementation and assessment of the



A call for action

15. The progress of ESD remains unevenly distributed and requires different approaches in different contexts. In the coming years, there is a clear need for both developed and developing countries, civil society and international organisations to make significant efforts to:

At policy level in member states

- a) **Promote ESD's contribution to all of education and to achieving quality education**, with particular regard to fostering the linkages between ESD and EFA within a coherent and systemic approach. Foster the goals of the ESD agenda in international fora and at the national level.
- b) **Increase public awareness and understanding about sustainable development and ESD**, by mainstreaming and expanding the learning and insights gained in the first five years of the UN DESD into public awareness policies and programmes and various forms of informal learning. This should include promoting the role and contribution of the media for fostering public awareness and understanding of sustainability issues. It should also include capacity-building of media professionals.
- c) **Mobilize adequate resources and funding in favour of ESD**, in particular through integrating ESD into national development policy and budgetary frameworks, into UN common country programming processes and other country-level policy frameworks (such as sector-wide approaches), as well as into EFA and MDG initiatives. Promote and include ESD in the priorities of foundations and donors.
- d) **Re-orient education and training systems to address sustainability concerns through coherent policies at national and local levels**. Develop and implement ESD policies through co-ordinated inter-sectoral/inter-ministerial approaches that also involve business and the corporate sector, civil society, local communities and the scientific community.
- e) **Develop and strengthen existing international, regional and national enabling mechanisms and cooperation for ESD that respect cultural diversity**. Establish regional

and country-level committees, networks and communities of practice for ESD that strengthen local-national, and national-global links, and that enhance **North-South-South** and **South-South co-operation**.

At practice level

- f) **Support the incorporation of sustainable development issues using an integrated and systemic approach in formal education as well as in non-formal and informal education at all levels**, in particular through the development of effective pedagogical approaches, teacher education, teaching practice, curricula, learning materials, and education leadership development, and also by recognizing the significant contribution of non-formal education and informal learning as well as vocational and work-place learning. Sustainable development is a cross-cutting theme with relevance to all disciplines and sectors.
- g) **Reorient curriculum and teacher education programmes to integrate ESD into both pre-service and in-service programmes**. Support teacher education institutions, **teachers** and **professors** to network, develop, and research sound **pedagogical practice**. Specifically support teachers to develop ESD strategies that can work with large class sizes, and to evaluate ESD learning processes.
- h) Promote evidence-informed policy dialogue on ESD, drawing upon relevant **research, monitoring and evaluation strategies**, and the **sharing and recognition of good practices**. Develop national ESD indicators that inform the effective implementation and review of ESD outcomes and processes.
- i) **Develop and extend ESD partnerships to integrate ESD into training, vocational education and workplace learning** by involving civil society, public and private sectors, NGOs, and development partners. ESD should become an integral part of the training of leaders in business, industry, trade union, non-profit and voluntary organizations, and the public services. Re-orient TVET programmes to include ESD.

- j) **Involve youth in the design and implementation of ESD.** Engage the commitment, solidarity and potential of youth and their organisations and networks in enhancing ESD. Foster young people's ownership of ESD questions and issues.
 - k) **Enhance the major contribution and key role of civil society** in stimulating debate and public participation, and initiating ESD actions. Explore ways to further this involvement and commitment.
 - l) **Value and give due recognition to the important contribution of traditional, indigenous and local knowledge systems for ESD** and value different cultural contributions in promoting ESD.
 - m) ESD should actively promote **gender equality**, as well as create conditions and strategies that enable women to share knowledge and experience of bringing about social change and human well-being.
 - n) **Develop knowledge through ESD networking.** Identify and support schools, universities and other higher education and research institutions, education centres and education networks that could serve as centres of expertise and innovation that develop and share knowledge, and create resources for ESD. Explore the potential of specific geographical and bioregional sites which can serve as spatially defined 'laboratories' for ESD.
 - o) Encourage and enhance **scientific excellence, research and new knowledge development** for ESD through the **involvement of higher education institutions and research networks** in ESD. Mobilise the core functions of universities: teaching, research and community engagement to strengthen global and local knowledge of ESD, and utilise the UNESCO ESD Chairs and UNESCO programme networks in this process. Establish institutional and organisational structures that facilitate flexibility, student participation, and multi-disciplinary programmes and develop model projects that can respond to the complexity and urgency of ESD. Reward structures should be developed and implemented to support ESD initiatives and research in higher education.
 - p) **Develop institutional mechanisms** during the UN Decade of Education for Sustainable Development and other ongoing Decades, such as the UN Decade for Action 'Water for Life' that will ensure that ESD continues to be implemented beyond those Decades.
 - q) **Engage the expertise available within the UN system** to strengthen ESD in key sustainable development conventions; for example, those focusing on biodiversity, climate change, desertification and intangible cultural heritage.
 - r) **Intensify efforts in education and training systems to address critical and urgent sustainability challenges** such as climate change, water and food security by developing specific action plans and/or programmes within the UN DESD umbrella and partnership framework.
16. The participants in the 2009 World ESD Conference request UNESCO, as lead agency responsible for the UN DESD, to:
- a) Enhance its leadership and co-ordination role for the UN DESD based on the International Implementation Scheme in co-operation with other UN agencies and programmes such as UNEP, UNU, the EFA convening agencies (UNICEF, UNDP, UNFPA and the World Bank) – amongst others, and incorporate ESD into 'one UN' strategies at country level, particularly through UNDAF processes.
 - b) Support member states and other partners in the implementation of the UN DESD, particularly through upstream capacity-building and policy advice on the development of coherent national strategies, monitoring and evaluation, recognising and sharing good practices on ESD, advocacy and global partnership development, with due consideration to post-conflict and least developed countries.
 - c) Represent and/or promote the ESD agenda in other major education and development forums such as international conferences and negotia-



tions such as the G8, G20, Copenhagen Climate Change Conference, EFA High-Level Group, UN Chief Executives Board, and UNESCO world conferences (amongst other ongoing events and activities).

- d) Utilize the expertise that exists within UNESCO Biosphere Reserves, world heritage sites and other science, culture and education programmes, such as TTISSA (Teacher Training Initiative for Sub-Saharan Africa), ASPnet schools and LIFE (Literacy Initiative for Empowerment) to further ESD objectives and ensure that key priorities for ESD are integrated into longer term programmes and strategies within UNESCO.
 - e) Promote ESD-related research through UNESCO's programmes in order to enhance the quality and evidence-base of ESD. Further develop the global monitoring and evaluation system to evaluate ESD and take initiatives to develop international strategies and practices that can lead to a successful conclusion of the UN DESD with visible and concrete outcomes.
 - f) Highlight the relevance and importance of education and training in the UN Summit on Climate Change (COP 15) in Copenhagen, Denmark, in December 2009 in consultation and co-operation with other partners.
 - g) Intensify efforts and initiatives to put climate change education higher on the international agenda, in the framework of the DESD, in the context of UNESCO's strategy for action on climate change, and as a component of UN-wide action.
17. Furthermore, the participants in this conference undertake to work towards implementation of this Declaration.
18. The participants encourage the mobilization of adequate funding in support of the recommendations contained in this Declaration.

The participants in the World ESD Conference express their gratitude to the German government for hosting this conference, and welcome the intention announced by the Government of Japan to host jointly with UNESCO the end-of-decade world conference on ESD.

Partners

The World Conference was supported by several institutions. The following institutions kindly provided rooms for the Conference workshops:

- Deutsche Post
- Deutsche Welle
- German Federal Ministry for Economic Cooperation and Development
- German Federal Network Agency
- Press and Information Office of the German Federal Government
- UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training (supported by the Common Information Space of the UN Organizations in Bonn)

The organizers thank the Libyan Arab Jamahiriya for kindly sponsoring interpretation in Arabic for the plenary sessions during the three days of the Conference and China for kindly sponsoring interpretation in Chinese for the plenary sessions on the first day of the Conference.

Project-based Workshops were supported by the Federal Foundation for the Environment (DBU).



The farewell event on 2 April 2009 was supported by the Foundation for International Dialogue of the Savings Bank in Bonn.



Media Partner of the World Conference



The UNESCO World Conference on Education for Sustainable Development – Moving into the Second Half of the UN Decade was held from 31 March to 2 April 2009 in Bonn, Germany. It brought together 900 participants from 147 countries, among them 49 Ministers and Deputy-Ministers. Participants included representatives of UNESCO Member States, UN agencies, civil society organizations, education institutions, youth, and the private sector, as well as individual experts. The Conference was organized by UNESCO and the German Federal Ministry of Education and Research, in cooperation with the German Commission for UNESCO.

At the mid-point of the United Nations Decade of Education for Sustainable Development (2005-2014), the Conference highlighted the essential contribution of Education for Sustainable Development (ESD) to achieving quality education worldwide, provided a forum for international exchange on ESD, took stock of what has been achieved so far, and developed strategies for the second half of the UN Decade.

The Proceedings contain the outcomes of the World Conference: reports on plenary sessions, the high-level segment, 22 workshops, 14 project-based workshops, a workshop for young people engaged in ESD, and the Bonn Declaration, which was adopted by consensus in the closing plenary.