



## Workshop 16

# Teacher education in the DESD: review and directions

**Time:** 2 April: 9.00-13.00h

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

### Introduction

The reorienting of teacher education to address sustainability has been identified as one of the most effective ways to promote ESD in educational institutions. Through teacher education institution's work with pre-service and in-service teachers, the potential to reach the world's estimated sixty million teachers is maximised. Teacher education is, therefore, one of the main vehicles through which capacity for implementing ESD can be built.

The workshop will review initiatives in the first half of the DESD, assess the contributions of the DESD to these, identify enabling and challenging factors for enhancing the contributions of the DESD in the next 5 years, and make recommendations for enhancing the quality, relevance and up-take of UNESCO guidelines on teacher education for ESD.

### UNESCO Initiatives

The call in 1998 from the United Nations Commission on Sustainable Development work programme in ESD for UNESCO to develop guidelines for reorienting teacher education to address sustainability was a significant turning point in international action in this field. UNESCO's response to the call was to establish an international network of 30 teacher-education institutions in 28 countries. Teacher educators in these institutions engaged in a four-year process of study, trials and action research to develop a wide range of innovative projects, including:

- Reviewing and revising their existing courses to address sustainability.
- Infusing ESD into other disciplines at undergraduate and graduate level programs such as agriculture, population education, and consumer education.
- Developing advanced Certificate programs in ESD for teachers.
- Developing distance education courses in ESD for teachers.
- Developing graduate level programs for teachers in ESD at Masters' and PhD levels.
- Developing a compulsory ESD course for Masters' programs in Geographical and Environmental Education.
- Establishing a national ESD professional development consortium.
- Holding institution-wide, national, and international conferences and workshops on ESD.
- Developing community-based off-campus teacher education projects within the inner city to improve the delivery of schooling to undereducated youth.

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# UNESCO World Conference on Education for Sustainable Development

31 March – 2 April 2009  
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- Developing link between the faculty of education and the school of business to co-develop professional development programs on ESD for senior level education administrators.
- Publishing manuals, texts, Web sites, and other sustainability teaching resources for elementary and secondary schools.
- Developing interfaculty exchanges related to ESD among universities.<sup>1</sup>

These teacher educators reflected on their initiatives and distilled a set of over 70 recommendations across eight areas of action. These recommendations have since been published as *The UNESCO Guidelines and Recommendations for Reorienting Teacher Education to Address Sustainability*, and have featured in many workshops and conferences during the DESD. While they do not provide specific advice on a minimum set of ESD concepts or skills for a teacher education course – perhaps such is not even possible or desirable - they provide a solid base from which we can further explore ways of promoting teacher education and ESD.

UNESCO has also developed a range of materials to support the contributions of teacher education to ESD. These include: *Teaching for a Sustainable World* (a joint UNESCO-UNEP project<sup>2</sup>); *Learning for a Sustainable Environment* (a UNESCO project that supported an action research network for teacher educators in seventeen Asia-Pacific countries<sup>3</sup>); *Good Practices in ESD in Teacher Education Institutions* (Good Practices No1-2007, UNESCO Education Sector); the UNESCO multimedia teacher education programme, *Teaching and Learning for a Sustainable Future*.<sup>4</sup> This programme provides over 100 hours of self-study for teacher and student teachers. Twenty-five highly interactive workshops provide knowledge and skills across four areas of ESD: Curriculum Rationale, ESD Across the Curriculum, Teaching Interdisciplinary Themes, and Teaching and Learning Strategies for ESD. Available as both a website and a CD-Rom, *Teaching and Learning for a Sustainable Future* is especially valuable in providing in-service teacher education on a self-study basis when it is very difficult and expensive to bring teachers together for professional development. The pro-

gramme was developed as a demonstration project to encourage widespread adaptation for local use. Accordingly, *Teaching and Learning for a Sustainable Future* has been translated and/or adapted for use by teacher educators in Southern Africa, China, Japan and Mexico with plans for Arabic and Slovak versions. The English version is being updated for the 2009 mid-Decade conference in Bonn.

## Other Initiatives

These projects reflect a wide range of significant teacher education projects in many parts of the world, such as: the *Sustainable Teacher Environmental Education Project (STEEP)* in Jamaica<sup>5</sup>; the *School Development through Whole School Approaches to Sustainability Education: The Sustainability Education in European Primary Schools (SEEPS)* (a European Union pre-service teacher education project) as well as the EU and OECD in-service teacher education projects, *School Development through Environmental Education (SEED)*<sup>6</sup> and *Environment and School Initiatives (ENSI)*.<sup>7</sup> The Centre for Environmental Education (CEE) in India has also collaborated with the Commonwealth of Learning to develop a Diploma in Environmental Education for teachers, called the “Green Teacher” course<sup>8</sup> while teacher education is also a key aspect of the *MESA (Mainstreaming Environment and Sustainability into African Universities) Partnership*, coordinated by UNEP.<sup>9</sup>

Despite this expanding list of initiatives in many parts of the world, the area of teacher education and ESD is remarkably under-researched. There is much anecdotal evidence, however, that ESD has not yet become an integral part of most teacher education programmes. Indeed, one analysis of the international scene states that “There has been no teacher education initiative that has strategically set out to mainstream sustainability into the core of teacher education programs”.<sup>10</sup>

The experiences of the teacher educators in the UNESCO network, mentioned above, indicate that “this lack of progress” stems from many sources, including: a lack of vision or awareness of the role education could play in achieving sustainability at the level of schools and school curriculum and assess-



ment boards (therefore, it is hard to justify in teacher education), a similar lack of understanding among faculty members and college/university administrators, and a perception that teacher education is an already over-crowded field with “too many disparate initiatives, too little time for thinking about new ideas, and too little encouragement to ... make links between initiatives, particularly where cultural norms or existing mission statements don’t mention sustainability”.<sup>11</sup>

### Approaches to Change

In order to improve this situation, one research report has critically analysed the main types of initiatives or strategies that have been used to try to support ESD through teacher education.<sup>12</sup> These are: (i) the collaborative resource development and adaptation model, the action research model and the whole-of-system model. The advantages and potential problems of each are described and illustrated by examples from around the world. Titled *Whole-school Approaches to Sustainability: A Review of Models for Professional Development in Pre-service Teacher Education*, this report is among the most comprehensive to date and makes a most worthwhile contribution. However, it has three small problems. First, it confuses issues associated with the professional development of teachers with those of teacher educators. Second, it assumes that there is one ideal way of promoting teacher education for ESD - through a whole-school (faculty? institute?) approach - and does not give sufficient recognition to other approaches. Third, it did not examine ways of addressing the factors behind the slow reorientation of teacher education for ESD.

### Workshop questions

This workshop will seek to address ways in which we can build capacity for the wider and successful implementation of ESD through initial per-service and continuing in-service teacher education. To this end, the workshop will seek answers to questions such as:

1. What concepts of ESD are most relevant to school learning and teacher education?
2. What contributions can teacher education make to the successful planning and teaching of ESD?
3. What are the key challenges for enhancing teacher education for ESD?
4. How may the range of initiatives in teacher education for ESD that have been initiated by the DESD be categorized?
5. What factors have contributed to the relative degree of success of these initiatives?
6. What impetus has the DESD brought to this field?
7. What can be done to enhance the up-take of UNESCO guidelines on teacher education for ESD?
8. What are the key priorities for the next five years of the DESD?

<sup>1</sup> See <http://unesdoc.unesco.org/images/0014/001433/143370E.pdf>

<sup>2</sup> See <http://www.environment.gov.au/education/publications/tsw/index.html>

<sup>3</sup> See at <http://www.ens.gu.edu.au/ciree/LSE/MAIN.HTM>

<sup>4</sup> See <http://www.unesco.org/education/tlsf>

<sup>5</sup> See <http://www.nepa.gov.jm/necweb/actionplan/planbook/tableofcontents.htm>

<sup>6</sup> See <http://seed.schule.at/>

<sup>7</sup> See [www.ensi.org](http://www.ensi.org)

<sup>8</sup> See <http://www.col.org/colweb/site/pid/3895>

<sup>9</sup> See <http://www.unep.org/Training/features/mesa.asp>

<sup>10</sup> See <http://www.aries.mq.edu.au/pdf/TeacherEduDec06.pdf> (p.10)

<sup>11</sup> See footnote 1 (p. 29)

<sup>12</sup> See footnote 10.

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