Editorial

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Welcome to the special issue on environmental education. We are very happy to introduce this special issue which contains a set of interesting papers on environmental education and sustainable development.

The 2002 Johannesburg meeting emphasized the significance of education and learning in promoting the cause of sustainable development. The meeting acknowledged that progress toward sustainability (since Rio) has been rather limited and for this reason strongly encouraged the cause of education for sustainable development. In particular, it suggested the mainstreaming of sustainability in all sectors of education, thus fostering the adoption of sustainable lifestyles and decision making.

Another important achievement of the Johannesburg Summit was the adoption of Resolution 57/254 which declared the period from 2005 to 2014 as the UN Decade of Education for Sustainable Development (DESD). An important event since this UN decision is the 34th session of the UNESCO General Conference, in 2007, which emphasized that governments and UNESCO need to engage in serious efforts to reorient education for sustainable development on a global basis. The 2012 Report of the UN Secretary-General's High-level Panel on Global Sustainability also referred to the importance of DESD (Leal Filho et al. 2015).

The UN Decade of Education for Sustainable Development has come to an end and set the basis for further developments in the future. The Global Action Programme, agreed at the final event of DESD, outlines further action to be undertaken in the future.

Apart from the global discussions and negotiations, the academic debate on environmental education has also continued. Despite the progress made over the years, there are still many maps and many needs to be met. In this context, this special issue of *Environment, Development and Sustainability* contains a set of scholarly papers, which addresses many of these needs and points out to future developments.

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The first paper, titled “Measuring Sustainability at Universities by means of the Sustainability Tracking, Assessment & Rating System (STARS): early Findings from STARS Data,” contains examples and best practices from selected institutions of higher education. The authors, Walter Leal Filho and Monika Urbanski, explore the significance and potential of Sustainability Tracking, Assessment & Rating System (STARS) in providing insight into campus sustainability trends and best practices across the planet.

The second paper, titled “Introducing Education for Sustainable Development into Egyptian Schools,” was written by Hani Sewilam, Orla McCormack, Marlene Mader and Mohamed Abdel Raouf, and discusses the merits and challenges of the European–Egyptian project “EduCamp: Education for Sustainable Development Beyond the Campus” which aims to introduce important sustainable development principles into teaching and learning into Egyptian public schools.

Paper number three “Weaving Complexity and Accountability: Approaches to Higher Education Learning Design (HELD) in the Built Environment” was prepared by Kathryn Rosemary Hegarty and Sarah Emily Holdsworth and looks at the application of Higher Education Learning Design Framework (HELD) framework in two built environment undergraduate courses taught at RMIT University. The authors examine this framework with regard to knowledge themes, professional and generic skills and assessment design.

The next paper, “An Analysis of Canadian STARS-rated Higher Education Sustainability Policies” co-authored by Lauri Lidstone, Tarah Wright and Kate Sherren, explores how Canadian higher education institutions which have used the STARS are defining and enacting sustainability in campus administration using policy documents as a tool to achieve this.

“Pathways towards Whole Community Transformation: A Case Study on the Role of School Engagement and Environmental Education” is the title of the paper written by Ingrid Kajzer Mitchell, Christopher Ling, Charles Krusekopf and Susan Kerr, who present an intergenerational environmental education project in a suburban community in Canada to increase awareness and involve young people in a renewable energy initiative. Their main research questions were to determine the type of transformative learning and the impact of education for sustainability in the behavior of young people and those of their households.

The paper, “Training in environmental health necessitates tacit knowledge” prepared by Polyxeni Nikolopoulou-Stamati, Ioannis Matiatos, Chrysanthi Kotampasi, Panagiotis Stamatis, Annie J Sasco, Evaggelia Protopapa and Luc Hens, explores the problem of knowledge management and the role of tacit knowledge in environmental health (EH). The authors assess the appreciation of holders of the MSc program on “Environment and Health: Capacity Building for Decision-making” regarding their tacit/formal knowledge balance in EH programs as well as the usefulness of the MSc program itself.

The next paper in this special issue is “Five Features for Enabling Sustainability in Higher Education in the UN Decade on Education for Sustainable Development” written by Robert VanWynsberghe and Janet Lynn Moore. They use the Learning City initiative as a case study to show how postsecondary education can provide quality sustainability education in accordance with the concepts of transdisciplinarity and community service learning.

The piece “Population typology to better target environmental education: a case from Algeria” written by Fatma Demnati, Farid Allache and Lisa Ernuol defined the different existing population types using socioeconomic criteria in four major wetlands in Algeria and examined the use and perception of natural resources by each population type. This

typology helped improve the impact of environmental education and awareness raising in the area of investigation and could be useful as a reference for other protected areas.

The paper “Transforming higher education to support sustainability science for a resilient future: the influence of institutional administrative organization” co-authored by Shirley Vincent and Steven Mulkey shows how a small environmental college restructured its administration, curriculum and pedagogy around a sustainability science framework. They also illustrate the impact of different kinds of interdisciplinary environmental and sustainability programs on sustainability education in the USA

Finally, the paper “Designing a Distance Learning Sustainability Bachelor’s Degree” written by Luis Eduardo Velazquez, Nora Elba Munguia, Alma Gabriela Pulgarin and Esteban Picazzo (1) describes the curriculum design of a distance learning sustainability Bachelor’s degree program in Mexico and (2) discusses the usefulness of the competence-based curriculum design as a prerequisite to curriculum greening.

All in all, these papers offer useful insights into the wide range of research and studies on environmental education for sustainable development being performed today. They also show the need for the measures required for all countries to benefit more from the many opportunities the DESD may provide. These measures include strengthening sustainability-related competencies such as understanding complexity, identifying connections and interdependencies, taking part in democratic decision-making processes, critically examining systems, policies and routines which seem unsustainable or producing new forms of teaching and learning together with the necessary curricula which are important for fostering such competencies (Leal Filho et al. 2015).

Enjoy your reading!

Walter Leal Filho and Evangelos Manolas.

Guest Editors.

Reference

- Leal Filho, W., Manolas, E., & Pace, P. (2015). The future we want: Key issues on sustainable development in higher education after Rio and the UN decade of education for sustainable development. *International Journal of Sustainability in Higher Education*, 16(1), 112–129.