

WFEO Model Code of Practice for Sustainable Development and Environmental Stewardship

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Introduction

Engineers are not only concerned with developing projects that are sustainable, but also with a wide variety of environmental management responsibilities impacting society and the environment. The long-term societal and economic health depends on a healthy environment.

The WFEO Model Code of Practice for Sustainable Development and Environmental Stewardship defines and explains ten principles that guide engineering practice in the wider context of sustainable development (SD) and environmental stewardship (ES). It will support engineers in their professional practice, in dealings with other professionals and guide professional engineering organizations.

SD and ES Explained

Many professional groups, including engineering organizations, have developed specific, though often discipline-centred, SD definitions. Often such definitions fail to distinguish between discretionary wants and essential needs.

The 1987 Brundtland Commission provided perhaps the broadest and most widely accepted SD definition in stating: "Sustainable development is development that meets the social, economic, and environmental needs of the present without compromising the ability of future generations to meet their needs."

The commission focused on the essential needs of the world's poor, which deserve overriding priority. It also considered "limitations" the state of technology and social organization impose on the environment's ability to meet present and future needs.

Stewardship means taking care of something not belonging to you. Environmental Stewardship is more difficult to define. Often stewardship has been addressed narrowly as protecting an endangered species or preserving a threatened eco-system. The Model Code states:

"Environmental Stewardship is the prudent use of the finite resources in nature to produce the greatest benefit while maintaining a healthy environment for the foreseeable future."


The engineering profession plays a significant role in economic

development and in protecting the environment. It is ideally situated to play a significant role in SD and ES. For engineers to be relevant to current and future generations and provide guidance and leadership to society, a more proactive approach to sustainability, as outlined in the table below, is required.

The Interpretive Guide

The Interpretive Guide serves as an accompanying document to the WFEO Model Code of Practice for Sustainable Development and Environmental Stewardship. It provides further amplification and explanation to engineers and national engineering organizations on interpretation and implementation of the ten principles.

Next Steps

The Model Code and Interpretive Guide will be published in the autumn of 2013 and posted on the WFEO website (www.wfeo.net). In 2014 and 2015, in partnership with other standing committees, and national and international members, WFEO-CEE will undertake efforts to increase awareness and facilitate engagement of the principles by engineers. 

WFEO Model Code of Practice for Sustainable Development and Environmental Stewardship "Think Global and Act Local"

The Model Code consists of ten principles that speak to individual engineers:

1. Maintain and continuously improve awareness and understanding of environmental stewardship, sustainability principles and issues related to your field of practice.
2. Use expertise of others in the areas where your own knowledge is not adequate to address environmental and sustainability issues.
3. Incorporate global, regional and local societal values applicable to your work, including local and community concerns, quality of life and other social concerns related to environmental impact along with traditional and cultural values.
4. Implement sustainability outcomes at the earliest possible stage employing applicable standards and criteria related to sustainability and the environment.
5. Assess the costs and benefits of environmental protection, eco-system components, and sustainability in evaluating the economic viability of the work, with proper consideration of climate change and extreme events.
6. Integrate environmental stewardship and sustainability planning into the life-cycle planning and management of activities that impact the environment, and implement efficient, sustainable solutions.
7. Seek innovations that achieve a balance between environmental, social and economic factors while contributing to healthy surroundings in both the built and natural environment.
8. Develop locally appropriate engagement processes for stakeholders, both external and internal, to solicit their input in an open and transparent manner, and respond to all concerns – economic, social and environmental in a timely fashion in ways that are consistent with the scope of your assignment. Disclose information necessary to protect public safety to the appropriate authorities.
9. Ensure that projects comply with regulatory and legal requirements and endeavour to exceed or better them by the application of best available, economically viable technologies and procedures.
10. Where there are threats of serious or irreversible damage but a lack of scientific certainty, implement risk mitigation measures in time to minimize environmental degradation. 