

## **The Earth Charter, Engineering Roles and Responsibilities**

James W. Poirot

Mr. James W. Poirot is Chairman Emeritus of CH2M Hill Companies, Ltd. Of Denver, Colorado. He serves as Vice President for External Affairs of the World Federation of Engineering Organisations (WFEO) and as President of its Technology Committee (ComTech).

The World Federation of Engineering Organisations (WFEO) joined the International Union of Technical Associations and Organisations (UATI) and the International Federation of Consulting Engineers (FIDIC) in 1991 to form The World Engineering Partnership for Sustainable Development and became the principle partner in carrying out the work of the Partnership. The objectives were to provide engineering input to the documents being developed for adoption by the 1992 Earth Summit and to provide ongoing coordination of global engineering activities related to sustainable development. One of these documents was to have been the Earth Charter, but it was felt more work was required before adoption.

WFEO representatives attended the Earth Summit and submitted comments on the draft documents. WFEO's involvement in the Earth Charter became more engaged in 1997 when a new Benchmark Draft was published. Since then I have represented WFEO on the Earth Charter International Resource Committee appointed by The Earth Council, headquartered in Costa Rica. I have also served on the US National Earth Charter Committee and have participated in the Continental Americas Earth Charter Forum in Brazil.

### **EARTH CHARTER BACKGROUND**

Although a world environmental ethic was discussed during the formation of the United Nations in 1945, emphasis on a global ethic was not initiated until adoption of the Stockholm Declaration in 1972. This Declaration's primary focus was the human environment. By 1982, the UN General Assembly adopted the World Charter for Nature. In its report in 1987, "Our Common Future," the United Nations World Commission on Environment and Development called for the creation of both a new charter and a new covenant that would set forth fundamental principles for sustainable development.

In 1997 at the conclusion of the Rio + 5 Forum, the Earth Charter Benchmark Draft was issued. Over thirty-five nations have national committees reviewing the draft, regional meetings have been held and training sessions are being conducted to expand the review. In March 1999, Benchmark Draft No. II was issued and is now circulated for review.

During 1998 and 1999 engineering review comments were submitted and Benchmark Draft No. II recognizes these comments.

### **THE EARTH CHARTER, BENCHMARK DRAFT NO. II**

There are 16 principles in Benchmark Draft No. II, 50 sub-principles and a preamble. An abbreviated draft has been issued, which contains the 16 statements of principle and a preamble. I believe there are engineering implications in each of the 16 principles and especially in the 10 that are indicated within parens (-).

The abbreviated 16 principles are as follows:

**Principles:**

Together in hope, we pledge to:

1. Respect Earth and all life.
2. Care for the community of life in all its diversity.
3. Strive to build free, just, participatory, sustainable, and peaceful societies
- (4) Secure Earth's abundance and beauty for present and future generations.

In pursuit of these goals, we will:

- (5) Protect and restore the integrity of Earth's ecological systems, with special concern for biological diversity and the natural processes that sustain and renew life.
- (6) Prevent harm to the environment as the best method of ecological protection and, when knowledge is limited, take the path of caution.
7. Treat all living beings with compassion, and protect them from cruelty and wanton destruction.
- (8) Adopt patterns of consumption, production, and reproduction that respect and safeguard Earth's regenerative capacities, human rights, and community well-being.
9. Ensure that economic activities support and promote human development in an equitable and sustainable manner.
- (10) Eradicate poverty, as an ethical, social, economic, and ecological imperative
- (11) Honor and defend the right of all persons, without discrimination, to an environment supportive of their dignity, bodily health, and spiritual well-being.
- (12) Advance worldwide the cooperative study of ecological systems, the dissemination and application of knowledge, and the development, adoption, and transfer of clean technologies.

(13) Establish access to information, inclusive democratic participation in decision making, and transparency, truthfulness, and accountability in governance.

14. Affirm and promote gender equality as a prerequisite to sustainable development.

(15) Make the knowledge, values, and skills needed to build just and sustainable communities an integral part of formal education and lifelong learning for all.

(16) Create a culture of peace and cooperation.

### **TRENDS IN CONSTRUCTIVE CRITICISM**

Engineering committees are meeting now in the United States and elsewhere to review the current draft of the Earth Charter. Comments submitted early to the Earth Charter Drafting Committee included recognizing that

1) technology development and transfer is necessary for the successful implementation of the Earth Charter principles;

2) natural disaster mitigation strategies are vital for the protection of lives and the environment; and

3) extreme statements not practical to implement will hinder support for the Earth Charter.

Engineering review has been initiated through published articles in engineering publications inviting comments. A common general comment is opposition to the statement in Principle 9, which refers to "sharing the wealth." Some feel this statement supports an extreme socialized government. The discussions instead are centered on how to solve the environmental issues in poor countries. One estimate of world environmental costs is \$125 billion per year. The problem is that only about \$75 billion per year is available and that the poorest nations will not be able to address the issues having local and global impact without help from industrialized nations. It has been estimated that only 2 to 3 percent of a nation's GNP (Gross Domestic National Product) can be spent on environmental issues. In many nations this is a very small amount and will not be beneficial without help. Also, it was reported in 1997 that government foreign aid for environmental projects had steadily declined since 1992.

If water supply, water pollution and air quality are important issues on a global basis, industrialized nations will have to expand their financial support to the poorest nations and "share the wealth."

### **EARTH CHARTER SCHEDULE**

The Earth Council in Costa Rica is managing development of the Earth Charter. The schedule set by the Earth Charter Commission is for comments to be submitted to the Earth Council by December 31, 1999. These will be consolidated and provided to the Earth Charter Commission in February 2000. The Commission will adopt a new Earth Charter in March or April 2000 and recommend it to the United Nations General Assembly in mid-2000. The UN General Assembly will be asked to adopt the final Earth Charter in 2002. It is expected to be re-addressed periodically over the decades ahead.

Engineering comments will be assembled by December 15, 1999 and forwarded directly to the Earth Council, National Committees and the Drafting Committee.

### **THE ENGINEER'S ROLE AND RESPONSIBILITY**

The Earth Charter is a global policy document. It is considered to be "soft law." Those that use it will be applying the principles to the work of engineers all over the world. As stated earlier, at least ten of the principles have direct impact on the engineering profession. Too often politicians and other professions set the policies engineers must work within, and, in the case of the Earth Charter, the engineering profession has an opportunity to help shape the principles for sustainable development. Over the past decades, hundreds of engineering articles have made the case that the profession must be part of the policy-setting process.

### **ALL ENGINEERING ASSOCIATIONS SHOULD PARTICIPATE**

Many engineering associations are modifying their codes of ethics to incorporate sustainable development principles. Some have included "----strive to comply with the principles of sustainable development." The Earth Charter Preamble refers to the Earth Charter as "the principles of sustainable development," and a goal of the Earth Charter process is to urge all public and private organizations to adopt Earth Charter values.