

# EOLSS PUBLICATION CATALOGUE

## July - 2011

# ENCYCLOPEDIA OF LIFE SUPPORT SYSTEMS



United Nations • Encyclopedia  
Educational, Scientific and • of Life Support  
Cultural Organization • Systems

• In partnership with

• EOLSS

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  2. MATHEMATICAL SCIENCES
  3. BIOLOGICAL, PHYSIOLOGICAL AND HEALTH SCIENCES
  4. BIOTECHNOLOGY
  5. LAND USE, LAND COVER AND SOIL SCIENCES
  6. TROPICAL BIOLOGY AND CONSERVATION MANAGEMENT
  7. SOCIAL SCIENCES AND HUMANITIES
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  9. CONTROL SYSTEMS, ROBOTICS AND AUTOMATION
  10. CHEMICAL SCIENCES ENGINEERING AND TECHNOLOGY RESOURCES
  11. WATER SCIENCES, ENGINEERING AND TECHNOLOGY RESOURCES
  12. ENERGY SCIENCES, ENGINEERING AND TECHNOLOGY RESOURCES
  13. ENVIRONMENTAL AND ECOLOGICAL SCIENCES, ENGINEERING AND TECHNOLOGY RESOURCES
  14. FOOD AND AGRICULTURAL SCIENCES, ENGINEERING AND TECHNOLOGY RESOURCES
  15. HUMAN RESOURCES POLICY, DEVELOPMENT AND MANAGEMENT
  16. NATURAL RESOURCES POLICY AND MANAGEMENT
  17. DEVELOPMENT AND ECONOMIC SCIENCES
  18. INSTITUTIONAL AND INFRASTRUCTURAL RESOURCES
  19. TECHNOLOGY, INFORMATION AND SYSTEM MANAGEMENT RESOURCES
  20. AREA STUDIES (Africa, Brazil, Canada and USA, China, Europe, Japan, Russia)

## 1. WEB PUBLICATIONS

### 1.1. EOLSS-online: ENCYCLOPEDIA OF LIFE SUPPORT SYSTEMS (EOLSS)

A source of knowledge for sustainable development and global security to lead to fulfillment of human needs through simultaneous socio-economic and technological progress and conservation of the Earth's natural systems — a virtual dynamic library with contributions from thousands of scholars from over 100 countries and edited by well over 300 subject experts, for a wide audience: pre-university/university students, educators, professional practitioners, informed specialists, researchers, policy analysts, managers, and decision makers.

This archive is now available at <http://www.eolss.net> as an integrated compendium of twenty component encyclopedias

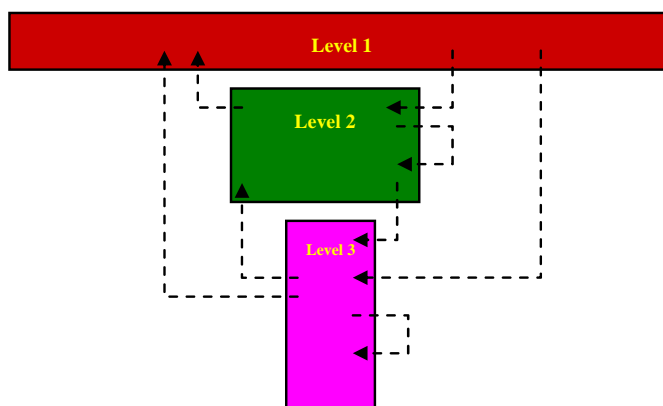
1. EARTH AND ATMOSPHERIC SCIENCES
2. MATHEMATICAL SCIENCES
3. BIOLOGICAL, PHYSIOLOGICAL AND HEALTH SCIENCES
4. BIOTECHNOLOGY
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Within these twenty on-line encyclopedias, there are about 235 Themes, each of which has been compiled under the editorial supervision of a recognized world expert or a team of experts such as an International Commission specially appointed for the purpose. Each of these 'Honorary Theme Editors' was responsible for selection and appointment of authors to produce the material specified by EOLSS. On average each Theme contains about thirty chapters. It deals in detail with *interdisciplinary* subjects, but it is also *disciplinary*, as each major core subject is covered in great depth by world experts.

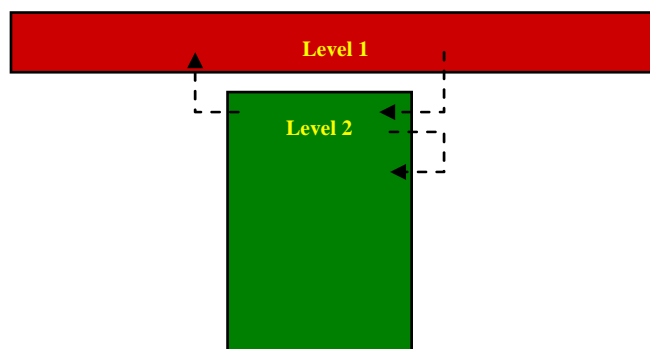
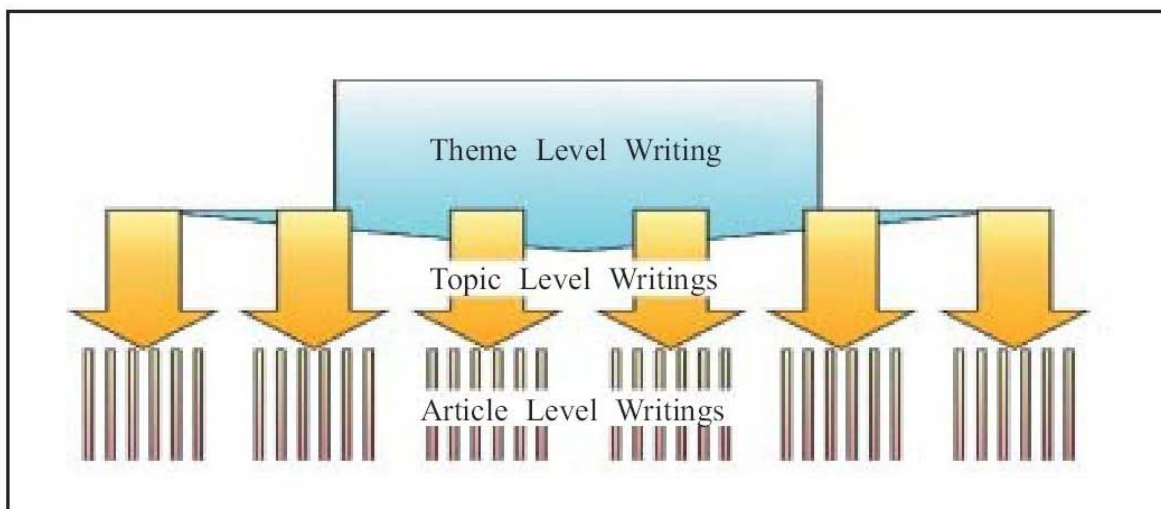
EOLSS Presentations are in gradually increasing depth.

- **Level 1 (Theme Level):** Presentations of broad perspectives of major subjects
- **Level 2 (Topic Level):** Presentations of perspectives of the special topics within the subjects
- **Level 3 (Article Level):** In-depth presentations of the subjects in various aspects

Some themes have a three level structure and some Two level structure. The EOLSS web of knowledge is woven over a hierarchical structure through cross reference links



**The three level structure**



**The two level structure**

EOLSS is the result of an unprecedented global effort involving the collective expertise of nearly 400 Subject Editors and 10000 Authors from over 100 countries.

The EOLSS project is coordinated by the UNESCO-EOLSS Joint Committee ([http://www.eolss.net/eolss\\_international.aspx](http://www.eolss.net/eolss_international.aspx)) and sponsored by Eolss Publishers, which is based in Oxford, United Kingdom. Through many and diverse consultation meetings around the world, the EOLSS has benefited immensely from the academic, intellectual, and scholarly advice of each and every member of a large International Editorial Council ([http://www.eolss.net/eolss\\_international.aspx](http://www.eolss.net/eolss_international.aspx)), which includes Nobel and UN Kalinga Laureates,

World Food Prize Laureates, and several fellows of academies of science and engineering of countries throughout the world.

From 1996 thousands of scientists, engineers and policy-makers began meeting just to define the scope of the project, before discussing the details of the contributions. Regional workshops were held in Washington DC, Tokyo, Moscow, Mexico City, Beijing, Panama, Abu Sultan (Egypt), and Kuala Lumpur, to develop a list of possible subjects and debate analytical approaches for treating them.

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## **EOLSS Updating and Augmentation**

Efforts to update and augment the EOLSS body of knowledge: Editors and Authors are given free access to access their works and forward updates if any. New themes are added covering many additional subjects. Updating/augmenting is frequent- almost every month

## **EOLSS in Official UN Languages**

THE UNIVERSAL NETWORKING DIGITAL LANGUAGE FOUNDATION (UNDL) is now active on the translation project. The 1<sup>st</sup> International Workshop on Natural Language Processing Using the Universal Networking Language (UNL), took place during 4-7 May 2007 at Alexandria, Egypt. UNDL started to work with the six official UN languages. Twelve UNL language centers situated in France, Russia USA, Cairo, Sao Paulo, Madrid, Tokyo, China, etc. are participating in this work.

## **United Nations DECADE OF EDUCATION FOR SUSTAINABLE DEVELOPMENT**

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## A SAMPLE OF OPINIONS ON THE EOLSS PROJECT

*“Scientific curiosity and technological endeavors are deeply rooted aspects of human nature. They are responsible for the development of human society and welfare. But they are also responsible for much of the environmental problems we are facing today. Solutions for these shortcomings are inconceivable without full scientific and technological support. EOLSS has the goal to provide a firm knowledge base for future activities to prolong the lifetime of the human race in a hospitable environment.”* **Richard R. Ernst, Nobel Laureate-Chemistry**

*“The EOLSS is not only appropriate, but it is imaginative and, to my knowledge, unique. Much of what we can write about science, about energy, about our far-ranging knowledge base, can indeed be found in major encyclopedias, but as I understand your vision, never as a central theme; the theme of humanity, embedded in nature and constrained to find ways of maintaining a relationship with nature based upon understanding and respect.”* **Leon M. Lederman, Nobel Laureate in Physics**

*“The population of our planet and its development over the ages sets the scene for considering all global problems and it is reasonable to begin their discussion with population growth. ... Thus we are dealing with an interdisciplinary problem in an attempt to describe the total human experience, right from its very beginning. But without this perspective of time it is not possible to objectively assess what is happening today and provide an objective view of the present state of development, the challenge now facing humanity.”* **S.P. Kapitza, UNESCO Kalinga Prize Winner**

*“Pursuit of knowledge and truth supersedes present considerations of what nature, life or the world are or should be, for our own vision can only be a narrow one. Ethical evaluation and rules of justice have changed and will change over time and will have to adapt. Law is made for man, not man for law. If it does not fit any more, change it.... Some think that it is being arrogant to try to modify nature; arrogance is to claim that we are perfect as we are! With all the caution that must be exercised and despite the risks that will be encountered, carefully pondering each step, mankind must and will continue along its path, for we have no right to switch off the lights of the future.... We have to walk the path from the tree of knowledge to the control of destiny.”* **Jean-Marie Lehn, Nobel Laureate in Chemistry**

*“Ecotechnology involving appropriate blends of traditional technologies and the ecological prudence of the past with frontier technologies such as biotechnology, information technology, space technology, new materials, renewable energy technology and management technology, can help us to promote global sustainable development involving harmony between humankind and nature on the one hand and tolerance and love of diversity and pluralism in human societies on the other. We need shifts in technology and public policy. This is a challenging task to which the Encyclopedia of Life Support Systems should address itself.”* **M.S. Swaminathan, First World Food Prize winner**

*“EOLSS is concerned with the Life Support Systems... Each of these systems is a very complex one. ...we have to think of all these “systems” as closely related “subsystems” of the Planet Earth System. ...Rational decisions will be more and more possible to envision if one will be able to couple the physical modeling to economic and financial models and to human factors...”* **J.L. Lions, Japan Prize winner in Applied Mathematics**

*“In the coming decades, the need for working together, across countries, is essential. We need to bring 3 billion poor into society and make it possible for them to lead healthy lives, to get the health interventions that we all take as something as self-evident. It can be done. It is within reach. We need to invest in the future. We need to invest in the health of all people worldwide.”* **Gro Harlem Brundtland, Director General, WHO**, in an interview with Patricia Morales

*“We must learn to live at one with nature. Nature does not bear grudges, but it must not be brought to the point where it can no longer sustain human society and the continuance of humankind on Earth. I believe that one of the most important things is the shaping of a new value system, because nature can live without us, but we cannot live without nature. Instead of a hedonic approach, we should promote an approach that reasonably limits consumerism and which promotes the virtue of enoughness. If we insist on consumerism as the new utopia, nature will reject such a system, as surely as cultural diversity rejected the totalitarian system. Our generation has to face a difficult challenge, but as recent history has proven, walls of difficulty, like the Berlin Wall, can fall.”* **Mikhail Gorbachev, Nobel Laureate in Peace**, in an interview with Patricia Morales

*“We live in an increasingly interdependent world. As a result, we must cooperate together across all boundaries of nation, culture, faith, and race, and at all levels—locally, nationally, regionally, and globally— if we are to achieve our basic environmental, economic and social goals. Furthermore, if we are to make wise choices and to cooperate together effectively, we urgently need a shared vision of fundamental ethical values to guide us. In other words, the development of global ethics is essential. Our very survival as a species is in doubt if we cannot clarify our ethics and develop common values around such basic issues as environmental protection, justice, human rights, cultural diversity, economic equity, eradication of poverty, and peace.”* **Steven C. Rockefeller, Earth Charter Commissioner**, in an interview with Patricia Morales

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