

Florence - Italy
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“Environmental Challenges:
Action or Reaction
to Save the Planet?
Local and Global Strategies
for Ecological and
Societal Transition”

INTERNATIONAL WORKSHOP ON ADVANCES IN CLEANER PRODUCTION

Environmental Accounting Experiences for Cleaner and Sustainable Production and Policy

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We live in a time of global experiments, some of which threaten humanity, especially the most vulnerable part of it, and ecosystems. Increasing our knowledge is part of the solution, because it enables identification of problems and possible solutions, and facilitates individual and collective involvement in more sustainable behaviours. Quantifying the human influence on the environment, by means of environmental accounting tools, is a prerequisite for understanding the dynamics of man-nature systems and orienting choices. The environmental accounting is a physics-based monitoring system able to represent the reality in different units other than money. As nowadays almost any decision is based on short-term economic/financial convenience, focussing on other complementary units or dimensions enables visualization of more information and many opportunities to improve our lifestyle, environmental performances, and sustainability of our actions and systems.

A number of different environmental accounting tools exists, and some of them progressively present new and intriguing applications and implications. Just think at the Overshoot Day that derives from the Ecological Footprint methodology, or the Life Cycle Sustainability Assessment that results from the combination of economic, social and environmental aspects within the Life Cycle Thinking logic.

The research on the development of these methods, also aimed at increasing their informative potentialities, is a fertile research field. Here, advancements in the possible application of some environmental accounting tools are presented. The proposal includes: a possible extension of the Life Cycle Assessment (LCA) rationale to evaluate elements of circularity and industrial symbiosis plans; Greenhouse Gas (GHG) accounting specificities applied to micro and macro systems; design of accounting frameworks based on the Ecological Footprint to standardize environmental accounting of particular organizations; visualization of the foundations of Emergy synthesis for communication purposes and to reach a wider audience.

These experiences are aimed at stimulating awareness and knowledge, thus facilitating identification of suitable and sustainable solutions, measures and policies at different levels.

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