

Achievements and deliverables of the UNEP/SETAC Life Cycle Initiative (Phase 1) – Our contribution to the global Life Cycle Community

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ABSTRACT

The first phase of the UNEP/SETAC Life Cycle Initiative concluded in March 2007 with important achievements and the completion of a series of products.

The Initiative aims at facilitating the knowledge exchange among over a 100 leading life experts and associated regional networks (Africa, Eastern Europe, Latin America and Southeast Asia) and at promoting life cycle thinking worldwide in order to bring science-based life cycle approaches into practice.

This paper will present a summary on the activities of the Initiative and results during the first Phase. The most relevant achievements and deliverables from the Initiative are listed, and a general outline of the planned steps for the next 4 years. Further details on Phase 2 objectives can be found in a second paper presented at this conference.

1 Introduction

After the publication of the ISO 14040 (1998) series, a real need for supporting the dissemination and implementation of this approach worldwide was identified. UNEP and SETAC, aware of this need, jointly began to work on the articulation of existing efforts around Life Cycle Approaches resulting in the setting-up of the Life Cycle Initiative in 2002. This Initiative aims at promoting Life Cycle Thinking worldwide and at facilitating the knowledge exchange of almost 200 experts around the globe and 4 regional networks from different continents.

SETAC commits to provide technical advice and UNEP to facilitate the processes involving different stakeholders from several regions as well as to communicate achievements (i.e. by means of training and hosting the web site: <http://lcinitiative.unep.fr/>). UNEP serves as the Secretariat of this Initiative.

Phase 1 began in the year 2002, and has just been completed. During the first phase three important fields of work (Life Management, Life Cycle Inventories and Life Cycle Impact Assessments) as well as a cross-cutting area (Inclusion of Social Impacts in LCA) were established. Achievements and products from the first phase are being presented and disseminated for open use [1].

For the second phase beginning in 2006 - 2007, a renewed mission and goals and action plans have been outlined. This second phase will cover the period until 2010 and the execution of planned tasks is being initiated.

2 Performance and results of the Initiative up-to-now

The performance of the Initiative and results can be

summarized as follows:

2.1 Participation in the Initiative and representativeness of the members

Since 2002, there has been a considerable growth in the Initiative stakeholders' group. Currently, around 1,000 interested persons and experts have been identified and are registered in the UNEP Initiative's database, and 100 experts are actively working in three Working Programs (Life Management, Life Cycle Inventories and Life Cycle Impact Assessments) and their 13 Task Forces.

Around 300 out of 1,000 stakeholders come from Latin America, Africa and Asia. The largest group of members (almost 700) is from other continents like North America, Europe and Asia/ Pacific and from international organizations or private companies. An approximate distribution of identified persons interested in Life Cycle approaches is given in Figure 1.

Eighty percent of them come from academic and research institutions, 15% from NGOs and consulting firms and 5% from international companies, governmental institutions and other kind of organizations.

It is clear that the Initiative has moved towards a global network; however, it is also recognized that there is still a need to intensify actions to include more members from developing countries and from the private sector.

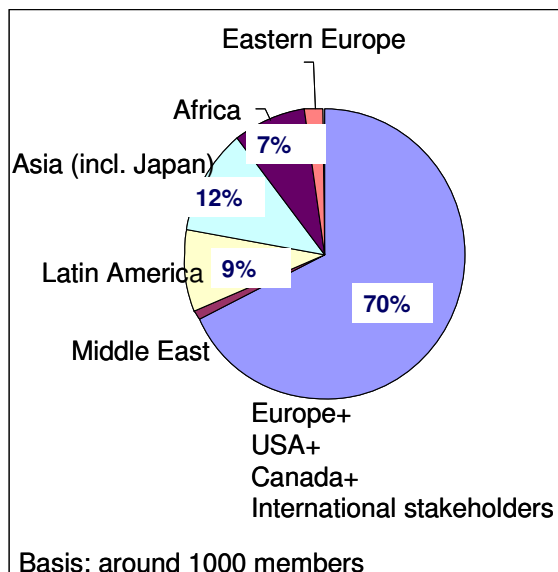


Figure 1- Distribution of regional representation of stakeholders of the Life Cycle Initiative

2.2 Achievements of the Life Cycle Initiative

Three key areas have been established. Life Cycle Management (LCM), Life Cycle Inventories (LCI) and Life Cycle Impact Assessments (LCIA). The most relevant achievements are:

- Building capacities through 25 Task Force meetings, many of them in developing countries or emerging economies.
- Setting-up an international Life Cycle Community, with an increasing number of developing country experts
- Making available free awareness-raising and training materials for global use.
- Enhancing consensus among LCA experts in methodological and data availability questions.
- Supporting the set-up of a global Resources Panel with the European Commission.
- Raising awareness among Life Cycle experts for the treatment of resources in LCA, including issues related to impact assessment for releases of metals.
- Ensuring that initiatives facilitated by UNEP such as the Finance Initiative, Global e-Sustainability Initiative, Tour Operators' Initiative and the Sustainable Building & Construction Initiative incorporate Life Cycle Thinking towards more sustainable consumption and production patterns in our societies.
- Being in contacts with Multilateral Environmental Agreements, in particular Basel Convention, to promote waste policies (i.e.: e-waste) being based on Life Cycle Thinking.
- Providing direct input to the task forces of the Marrakech Process that is being pursued by UNEP and the United Nations - Department of Economic and Social Affairs (UN DESA) [2].

Key Deliverables:

- Worldwide network of around 1000 stakeholders of which 100 experts actively participated in Initiative.
- Four regional networks (Africa, Eastern Europe, Latin America and Southeast Asia).
- 50 international conferences and symposia on LCA worldwide.

- Around 10 international publications in Journals (e.g. in the LCA Journal)
- 50 international conferences and symposia on LCA worldwide.
- 25 TF meetings and expert workshops.
- An open management content system: website ESTIS for the Life Cycle Initiative (<http://lcinitiative.unep.fr>) with 7000 visits per month, its task forces and regional networks (e.g. <http://estis.net/sites/alcala/>) and the ILCP (<http://estis.net/sites/ilcp/>).
- Why take a life cycle approach brochure in 4 languages [3].
- Free licenses of LCI databases and LCA softwares for 22 organisations from 14 developing countries to support LCA case studies.
- LCM training materials (draft versions).
- A Background report for a UNEP Guide to Life Cycle Management [4].
- International LCM guide.
- Feasibility studies for extended LCA including social aspects.
- Global LCI database registry released (www.lci-network.de/db-registry).
- Guidance documents on how to set up LCI databases for capacity building in all regions.
- Guidance on how to move from current practices to global recommended practice in LCIA.
- Global survey on LCM applications.

3. The life cycle initiative – second phase (2007 - 2010)

Based upon the achievements and success of Phase 1 as well as on the gaps needed to be filled in and on the growing interest perceived from our stakeholders to advance life cycle approaches worldwide, UNEP and SETAC agreed to continue their partnership in Phase 2.

3.1 New mission of the Life Cycle Initiative and work areas

A renewed mission, priorities for the second phase, and a selection of new activities are described in the next lines. The new mission is “to bring science-based life cycle approaches into practice”.

The work in the second phase of the Life Cycle Initiative is initially proposed to be structured in four work areas:

1. Life Cycle Approaches Methodology (including data, methods, case studies, etc.)
2. Life Cycle Approaches for Resources (including natural resources, chemicals, water, energy, etc.)
3. Life Cycle Approaches for Consumption Clusters (structured in housing, mobility, food and consumer products)
4. Life Cycle Approaches for Development (including institutional empowerment, training, curricular development, etc.)

Four consumption clusters (housing, mobility, food and consumer products) were selected, based on the critical impacts identified along their life cycles and on their potential to provide demonstrative case studies for positive changes towards sustainable consumption and production. In these cases, articulated implementation of life cycle approaches, based on enhanced life cycle methodologies and the enforcement of local capacities and the capacity building of decision makers, is key to achieving positive changes.

To achieve our revised mission, the objectives for Phase 2 are as follows:

- Objective 1: Enhance the global scope of life cycle approaches methodology
- Objective 2: Facilitate the use of life cycle approaches worldwide by encouraging life cycle thinking in decision-making in business, government and the general public about natural resources, materials and products targeted at consumption clusters
- Objective 3: Expanding capability worldwide to apply and to improve life cycle approaches

4. Conclusions

The UNEP/SETAC Life Cycle Initiative’s role is consolidating

- as catalyst of efforts on putting life cycle thinking into practice in business around the world,
- as facilitator of best case studies and training, and
- as support in the development of international policies that include life cycle thinking in developing and developed economies.

The Initiative brings together key actors from all the regions, and it is providing the platform and opportunity to share visions on activities for the promotion Life Cycle Thinking worldwide.

UNEP and SETAC are not-for-profit organizations, and the Life Cycle Initiative relies fully on voluntary works and on support and sponsorship, especially from government, business and industrial associations. Without sufficient support all these ideas for new projects will not be accomplished.

Therefore, your support is requested to prepare and communicate useful Life Cycle Approaches. For additional information, please visit the web site <http://lcinitiative.unep.fr/>, or contact sc@unep.fr.

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