



1st
INTERNATIONAL WORKSHOP
ADVANCES IN CLEANER PRODUCTION

IV SEMANA PAULISTA DE P+L
CONFERÊNCIA PAULISTA DE P+L

The Cleaner Production as Tool for the Development of the Environmental Strategy of a Centre of Higher Education

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This conference has as objective to share the experience of the University of Cienfuegos, Cuba, to promote similar strategies in diverse scenarios linked to the socio-environmental problem that you/they propitiate the exchange and improvement of ideas, concepts and actions guided to achieve a sustainable development.

The Agenda 21 is a call to the application of strategies of sustainable development and the realization of participative processes with the purpose of reaching the necessary social consent for the environmental improvement of the environment.

Anything impedes, but just the opposite that other institutions, as the own University, begin similar processes in their respective intervention spaces.

The concretion of the scientific thought in useful elements for the humanity is achieved, in the fundamental thing, by means of the work of the graduate university students. But it is in fact the result of that work, or the associated collateral effects, what impacts negatively from diverse ways to the environment and the society. It is imperative then to provide to the students and graduates of the universities an environmental education chord with the level of the Higher Education that allows them, so much to identify as solving the socio-environmental problems related with their professional chore. The Environmental Strategy of the University of Cienfuegos is conceived keeping in mind the Mission of the University, the relationship between Science-Technology-Society and the Cleaner Productions as the tool that allows solving, from the curriculum of the students, the mentioned problems.



The Environmental Strategy of the University Cienfuegos tries, therefore, of linking the performances in environmental matter from the institution to the spirit and the letter of the Calendar 21 of the United Nations, opening a participative process dedicated to guide the curricular activities toward the sustainable development. With this goal the Environmental Strategy of the University of Cienfuegos precise a series of objective that the university community can assume to develop, within the campus and outside, the corresponding tasks for the sake of the sustainable development.

The Cleaner Productions (CP) of goods and services are essential so that the concept of sustainable development becomes reality. For such a reason, the principles of the CP have been declared explicitly like centre of the Environmental Strategy of the University of Cienfuegos.

On the other hand, a social responsibility of the consequent university institutions exists with its paper of space of the knowledge, researching and teaching that it cannot be ignored and that it is exemplified in its environmental responsibility. The university can and it should have an own role in the diffusion of the environmental concern and in the contribution of solutions to the socio-environmental conflicts within the campus and outside. The focus that the CP offer in the solution of such environmental conflicts also allows to obtain economic benefits. From the perspective of the University of Cienfuegos (UCf) this focus non single search reduction of costs and of environmental impacts, but rather leaving a vision of the relationship Science-Technology-Society (CTS) it implies, also, to keep in mind to the social actors that intervene in these processes.

One of the most complex challenges that faces the society is related with the preservation of the ecosystems in that is inserted, since the activity antrópica is an important component of environmental degradation. This determines cultural, given behaviour patterns the man's participation in all the production systems and of administration of the services, as well as their implications in the current problems and



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of the future planning of the social and economic development in the particular region in that they unwrap their activities, reason why is of the biggest importance the study of the interaction relationships between the tecnospher and the society in the search of the knowledge of such interactions to be able to face successfully, and to give him appropriate solution, to the contradictions arisen among these elements, coordinating this way the sustainability of the development with the social and environmental impacts that it causes.

It is in this complex scenario that the Environmental Strategy of the UCf is framed guided to achieve the long term sustainability of the activities, so much of the own campus as of the Sector of Production and Services (SPS), looking for a bigger life's quality of the inhabitants' of the province of Cienfuegos, by means of solutions that they allow systematically to improve the use of the raw materials, the materials, the water and the energy entered to the processes, at the same time that they reduce the generation of residuals that cause a negative environmental impact.

The Environmental Strategy of the UCf was conceived and it elaborated starting from the diagnosis of necessities of the socio-environmental problem, and the reorganization of the theoretical and methodological treatment of the possible ways of solution of this.

In the development of such a strategy students, professors and workers of the university are involved, as well as scientific experts of institutions of the territory and of the own companies of the province. This transdisciplinary conception of the strategy looks for, to increase the environmental awareness of the professionals in the province, as well as to provide to the graduates of the universities a such knowledge that allows them so much to identify the environmental problems related with its professional chore, as giving solution to such problems by means of the systematic application of the principles of the CP, what contributes to the reduction of the costs of the Higher Education and of the SPS and to the reduction of the environmental impacts



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of the own University like of the SPS in the province and to the increase of its profitability, that which, additionally, fix the bases for the development of a net of experts in CP in the province to maintain a comprehensive and systematic work in this sense.