

CONCLUSIONS OF THE INTERNATIONAL CONFERENCE 'ENVIRONMENTAL CAPACITY BUILDING'

11–13 November 2011, Bucharest, Romania

The International Conference 'Environmental Capacity Building' was organised by B.EN.A., the Romanian Academy and 'Dunarea De Jos' University of Galati.

The Conference was attended by around 100 participants from the Balkan area and other countries. They bring a lot of diversified backgrounds by representing a number of important fields of activities and specialties in environmental arena. The participants were from Europe (Bulgaria, Germany, Italy, Netherlands, Greece, Croatia, Moldova, Romania, Serbia, FYR-Macedonia, and Turkey) and USA. The participants were from academy, university, research centers, design, industry, administrative decision-makers and also citizens. The presented papers covered a wide range of topics on chemistry, physics, biology, public health, electricity/electronics engineering, computer science, mining, social, economics, nuclear-radioactivity, toxicology, marine research, hydrology, agriculture, horticulture, renewable energy and information dissemination and publishing.

The Conference had three sessions: (a) plenary lectures; (b) oral presentations, and (c) posters presentations.

Detailed chapter and topics.

A. PLENARY LECTURES

The Official Opening was followed by the **Session of Plenary Lectures** in 5 different environmental fields with the following topics:

- Vital role of chemistry on human life and environment within the context of the international year of chemistry/IYC-2011;
- Detection levels of radioactivity in metal recycling;
- The Danube river water quality in the Galati area;
- Tailings management facilities for extractive industries;
- Nanotechnology solutions for improving water quality.

B. ORAL PRESENTATIONS

B1. Environmental management

There were 10 presentations covering a wide range of topics in this environmental sector, emphasising the importance of efficient governance issues that are vital

for success in sustainable development. These topics were: nitrogen in drainage water, role of ICTs in environmental issues, modelling of ground water resources, use of magnetic field in water treatment, holistic approach of the organisational impact on environmental issues, traffic monitoring, aerosol investigations in air media, use of UAVs for environmental monitoring, natural radioactivity of waste materials.

B2. Environmental monitoring

In this session there were 11 presentations on research works and studies covering the following topics: ecological potential of Istanbul, Black Sea scene data, renewable-biogas/bioethanol, improving air quality, wind turbines, statistics methods for fluxes estimations, wave energy, diesel water emulsion effects, tritium level trend in Danube, global climate change and archeological site preservation.

It is concluded that monitoring plays significant role in implementation of the existing regulatory issues, especially in cross-border conditions.

B3. Informatics – marine living resources – waste management – legislation – public health

The 9 presentations of this session regarded the following topics: coastal zone development, fishing indicators in the Black Sea, management of the Black Sea living resources, waste collection, monitoring of ambient air quality and public health, trace elements in blood, impact of Omega 3, hygienical status of surface water, collection systems and chemicals in agriculture.

The outcome of this session brought out the importance of international collaboration in research on inventory of fishery stock for sustainability of the macro-scale marine living resources at the Black Sea basin and integrating coastal zone management practices.

B4. Air – soil – water pollution – food technology

There were 21 presentations covering the following topics: greenhouse gas sources, urban pollutant modelling, radial sonic generators, clean water program, information capacity for decision-making, construction materials pollution, soil quality, floatation, water quality (case study), evolution of perennial fodder species, risk assessment, use of tritium and C14, microbial activity in soil, pollutants in drainage water, landfill ash and slag, enzymatic activity control, antimicrobial activity in food, cultivation in greenhouses, bioproducts from the beverage industry, environmental applications of extremophiles.

It was concluded that the ecosystem involving all environmental media and its impact to food chain through minimising the impact of heavy metals, radioactivity and phyto-toxins has to receive a highest priority consideration within the context of near-term sustainable development.

C. POSTER PRESENTATIONS

In this session 62 posters were submitted on various topics of environmental research: noise pollution, natural hazards, water treatment, toxicology, nanotechnology, renewable energy, recycling, etc. The great majority of the authors were Ph. D. students. It was concluded that the academic quality of the posters was at a very promising level.

In the framework of this Conference an agreement between the president of B.EN.A Prof. Fokion Vosniakos and the President of Academy of Science of Moldova Acad. Gheorghe Duca for the establishment of the National Bureau MOLD-B.EN.A has been signed.

The multicultural backgrounds and valuable expertise of the participants and especially the great efforts of Acad. Ionel Haiduc, the President of the Romanian Academy with his involvement in this International Conference added value to its conclusions.

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