

Report from WasteSafe 2015, 4th International Conference on Solid Waste Management in Developing Countries

Like the previous ones, **WasteSafe 2015**, the 4th event of *WasteSafe*, the largest International Conference on 'Solid Waste Management in Developing Countries' in the South Asian region of the World was successfully organized at Khulna University of Engineering & Technology (KUET) in Khulna of Bangladesh. The international conference was a three days program, *15-17 February 2015*. The conference was jointly organized by the Khulna University of Engineering & Technology (Bangladesh), Bauhaus University of Weimar (Germany), University of Padova (Italy), International Waste Working Group (IWWG) and the ORBIT Group. The conference was sponsored by 2 local companies (Seven Rings Cement and Magnum Steel Industries Limited), 1 international company (China Geo-Engineering Corporation) and 1 international organization (SNV – Netherland Development organization).

The success of the three past successive editions of these International Conferences (*WasteSafe 2009*, *WasteSafe 2011* and *WasteSafe 2013*) encouraged the organizer to continue activities in Bangladesh every odd year, in the month of February, when the best climatic conditions in Bangladesh coincide with the worst climatic conditions in many other countries. *WasteSafe 2015* was organized, as usual, to exchange views and experiences at both national and international levels and to understand the solid waste management concept and modern technologies, with a focus on the sustainability of the system as a whole, on the selection of the most appropriate technology, on the economy of the system, with a special emphasis on developing countries. Presentations were divided into the following five different categories:

- General Aspects of Solid Waste Management
- Hazardous Waste Management
- Industrial Waste and Sludge Management
- Landfill, Composting & Treatment
- Recycling & others

The Conference was held in the halls of the Civil Engineering Building of KUET at Khulna, Bangladesh. *More than 150 academics*, researchers, professionals, students and other figures from *11 different countries* submitted their scientific contributions and registered to attend in the conference. The Opening Session of the Conference was held in the Auditorium of KUET on Monday, 16th February 2015, and included a total of 70 oral presentations (*1 Theme paper, 1 Invited paper, 1 Keynote session consists of 3 Keynote papers and 12 technical parallel sessions*).

The Inaugural Ceremony was presided over by the Chairman of the Organizing Committee, *Prof. Muhammed Alamgir* and addressed by *Prof. Raffaello Cossu* from the University of Padova, *Italy*, *Prof. Echarad Kraft* and *Prof. Liz Bachhuber* from the Bauhaus University of Weimar, *Germany*, *Prof. Toshihiko Matsuto*, Hokkaido University, *Japan* and *Prof. Sanja Kalambura*, University of Zagreb & University of Applied Science Velika Gorica, *Croatia*. The *Administrator of Khulna District*, *Mr. Sheikh Harunur Rashid* delivered his speech as the *Chief Guest*. The Opening Session was followed by a group photo and a break for light refreshments, where the participants attending from different parts of the world exchanged greetings.

The conference saw the presentation of numerous high quality research studies, especially of practical issues, from both developing and industrialized countries. In the theme paper entitled as "Education in Waste Management", the importance of education in waste management is presented by *Prof. Sanja Kalambura*. Whereas in the invited presentation the relationship among the artists and engineers was

delineated by *Prof. Liz Bachhuber* in her paper “The Bauhaus Project: Tijuana/San Diego Border”. The keynote session focused on the solid waste management scenario in Japan, the past and the present (Prof. Toshihiko Matsuto), the anaerobic degradation of biodegradable materials (Prof. Eckhard Kraft) and about the first international regulation on sustainable landfilling (Prof. Raffaello Cossu).

A considerable number of papers were presented on different waste management scenarios and methods implemented in developing countries. The faecal sludge management issue was a new topic along with recycling of old furniture in Bangladesh in the conference. E-waste management, role of waste management in sustainability, 3R in economic development and many other topics dealt with during the conference.



Conference Chairmen with Chief Guest of the Opening Session of WasteSafe 2015

In the *WasteSafe 2015*, good numbers of experience and research findings were presented by young researchers from different countries, mainly from developing countries. The critical discussions and suggestions that emerged from presentation of papers will undoubtedly assist these researchers in their studies. Some of the topics highlighted during discussion included difficulties in achieving sustainable waste management practices in developing countries, lack of public awareness, need for community participation, organizational reforms, law enforcement, potential application of composting, recycling, strong need for hospital waste management and implementation of sustainable landfill technologies.

Other original research works dealt with increasing public awareness and change of attitude towards MSW management, informal recycling plants, development of appropriate composting technologies, management of organic wastes, leachate treatment and construction of sustainable landfill using locally available building materials and construction technologies.

The *WasteSafe 2015* Conference ended with a simple closing ceremony on 17th February 2015, presided over by *Prof. Alamgir* to evaluate the conference and to have specific suggestions and guidelines for the next *WasteSafe* Conference. *Prof. Cossu, Prof. Kraft, Prof. Matsuto, Prof. Kalambura and Dr. Kaimin Shih* was present as the guests and expressed their evaluations & views for the next *WasteSafe*. The organizing committee gratefully acknowledged the continuous, cordial and effective support provided by all organizations and individuals contributing towards the success of the conference. In particular, a special acknowledgement was addressed to the Conference sponsors, which were fundamental for covering the Conference costs. During the conference social events were also organized on 16th February, including a showcase of the different traditions of Bengali culture, with traditional dances and music, and a dinner with a huge variety of local delicacies.



Group photo of some of the participants at the *WasteSafe 2015* Conference

In the closing ceremony the participants highly appreciated the events and realized its necessity and suggested organizing a similar International Conference in a developing country every odd year and considered Khulna as an ideal place. Moreover, based on the feedback from the participants and the technical papers presented in *WasteSafe 2015*, it is decided to include Faecal sludge management in the next *WasteSafe 2017*. *Prof. Alamgir* also acknowledged the contributions of his colleagues, KUET authority and the volunteers (Students of KUET) who actively supported the events and contributed towards its success.

Finally, it was decided that the next *WasteSafe* conference will take place in Khulna, Bangladesh on 25-27 February 2017 at the same venue, with the scope of one day (25 Feb.) Training Program on different issues of solid waste management and rest of the days (26 & 27 Feb.) for conference.



Presentation of traditional cultural show during Conference Dinner on 16th February 2015

Post conference programmes included a 3 days tour to Sundarbans, the largest mangrove forests of the world, daylong programme in Mongla-Bagerhat-Rupsha to visit historical places of the southwest of the country and technical visits to various compost plants, door to door collection system, secondary disposal site, landfill site, recycling shops at Khulna and other waste management facilities.