

Brief Report from WasteSafe 2019, 6th International Conference on Integrated Solid Waste & Faecal Sludge Management in South-Asian Countries

Like the previous ones, **WasteSafe 2019**, the 6th event of *WasteSafe*, the largest International Conference on Solid Waste and Faecal Sludge Management 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, *23-24 February 2019*. The conference was jointly organized by the Khulna University of Engineering & Technology (Bangladesh), Bauhaus University of Weimar (Germany), University of Padova (Italy) and International Waste Working Group (IWWG). The conference was sponsored by University Grants Commission of Bangladesh, SNV - Netherlands Development Organization, WaterAid Bangladesh, Seven Rings Cement, Practical Action Bangladesh and China Geo-Engineering Corporation

This *WasteSafe 2019, 6th International Conference on Integrated Solid Waste & Faecal Sludge Management in South-Asian Countries*, is organized at Khulna, Bangladesh to exchange the views and experiences at international level and to understand the solid waste & faecal sludge management concept as a whole. It is expected that the academicians, researchers, officials and professionals will unfold the prevailing reality in these sectors, innovative ideas, latest findings and experiences in this forum in order to provide the necessary guidelines through which a safe and sustainable system for solid waste & faecal sludge management can be implemented within limited existing social settings, resources and inherent constraints.

To address these social and environmental issues, Khulna University of Engineering & Technology (KUET) has taken several initiatives in the past since 2002. In this footsteps, WasteSafe 2009, the 1st International Conference on Solid Waste Management was organized successfully in 9-10 Nov. 2009 at Khulna. The success of WasteSafe 2009, encouraged the organizer to continue such activities in Bangladesh in every odd year in a particular period. To materialize such attempt, the WasteSafe 2011, 2013, 2015 & 2017 the 2nd, 3rd, 4th & 5th International Conference on Solid Waste Management in Developing Countries was held successfully at Khulna, Bangladesh on 13-15 February 2011, on 10-12 February 2013, on 15-17 February 2015 & on 25-27 February 2017, respectively. To continue these activities, WasteSafe 2019, the 6th International Conference on Integrated Solid Waste & Faecal Sludge Management in South-Asian Countries has arranged at Khulna, Bangladesh on 23-24 February 2019 with theme of Solid Waste, Faecal sludge and related waste water management. WasteSafe 2019 is jointly organized by Khulna University of Engineering & Technology, Bangladesh; Bauhaus University Weimar, Germany; University of Padova, Italy; and International Waste Working Group (IWWG). Technical papers were invited through website (www.wastesafe.info) and information bulletin from the academicians/ researchers/ professionals/ social activists working on solid waste management around the worldwide before the conference date.

After review, a total of 64 technical papers including 3 Keynote papers and 1 Theme paper were selected for publications into the Conference Proceedings, Oral Presentation through 1 Inauguration session, 1 Keynote Sessions and 10 Technical sessions. In addition, there is also one poster session which mainly demonstrate the 8 postgraduate level ongoing research topics on faecal sludge management. Academicians, researchers, professionals and other personalities from 06 different countries - Bangladesh, India, Italy, Germany, Nepal, and Zimbabwe - submitted their scientific contributions in this conference. Papers have been lightly edited to homogenize the style and to revise the contents based on reviewers' comments. However, each individual author holds the final responsibility for the contents, quality and the presentation of the papers. In this proceedings only the executive summary of the papers are printed and hence published, however, full papers are available in a 'USB Memory Stick' given to the participants.

The Conference was held in the halls of the Civil Engineering Building of KUET at Khulna, Bangladesh. *More than 120 academics*, researchers, professionals, students and other figures from *7 different countries* submitted their scientific contributions and registered to attend in the conference.



Conference Chairmen with Chief Guest of the Opening Session of WasteSafe 2019

In the *WasteSafe 2019*, 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 solid waste and faecal 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 MS and FS 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 2019* Conference ended with a simple closing ceremony on 24th February 2019, 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. Lavagnolo, Prof. Ghosh, Dr. Khatiwada and Prof. Bari* 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 2019 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 2019, it is decided to include Faecal sludge management in the next WasteSafe 2021. *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 27-28 February 2021 at the same venue.

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.



Presentation of traditional cultural show during Conference Dinner on 23 February 2019