

Unit 2 Resource-productive material use
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The session focussed on various productive ways in which to use the material repeatedly till its end of life. The discussion ranged from reusing building components as in the case presented by Takumi Iwahara of Japan in his presentation titled “Reuse system of industrialized houses” where houses fabricated on assembly lines in factories were bought back from their clients and reused and recycled and refitted to fit new customers. In the process 80% of its original body parts were reused. Neelam Manjunath from India espoused emergence and growing need for alternative materials such as bamboo as the chief construction material for buildings all over the world through her presentation on “Bamboo buildings – the ultimate in sustainability”. David Pearlmutter from Israel also promoted the cause of Fly ash bricks as an alternative construction material. Keizo Yokoyama from Japan explained the resource consumption for buildings based on input-output analysis and Wei Yang from Germany presented “Simulation of evolution of the Chinese building stock”. Michel Bernier on behalf of Radu Zmeureanu presented the process that they followed for “Evaluation of the embodied energy in building materials and related carbon dioxide emissions in Senegal”.

One important topic that was presented in this session was study and the solution that the researchers from Canada used to evaluate the embodied energy of various building materials in Senegal. Embodied energy values are very important to determine the use of the appropriate building material use. The method developed during the research has high transferability potential and can be adopted in other developing countries.

The presentations were well selected and had representations from all parts of the world and covered the important issues that face appropriate and productive use of various building materials. The after-presentation discussions were properly guided by the two Chairs and were made to focus on the important aspects that affected the theme of the session.