News

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Experiences with the restoration of buildings and the construction of new buildings by reusing existing materials

Delegation trip to Nepal (Bhaktapur und Banepa) from 24 to 30 October 2024

As part of the learning process "Towards a Climate Positive Built Environment Using Bio-based and Re-used Materials", experts from the City of Munich, the Technical University of Munich and the City of Heidelberg travelled to Nepal in October 2024 to learn about Nepal's long-standing practices in the field of sustainable construction and the reuse of building materials during a week-long delegation trip.

Kathmandu Darbar Square | Photo: Moritz Bellers

The German delegation met the R.P. Foundation and the international organisation ICIMOD in addition to Banepa's municipal stakeholders and learned about the architectural landscape and circular building techniques in Nepal. The aim of the German delegation was to explore possibilities for applying such Nepalese approaches in Munich and Heidelberg. The delegation was also interested in discussing building in mountainous regions and resilient construction with regard to increasing extreme weather events.

Farmyard AP-Foundation, Paunati | Photo: Moritz Bellers

Nepal has a rich tradition of sustainable construction, where the reuse of building materials is firmly anchored. This is particularly noteworthy with regard to the efficient use of resources and the minimisation of waste, which was of particular interest to the delegation. Circular construction is used in the Kathmandu Valley, particularly for historical buildings. Here, the materials clay, wood, brick and stone are used or reused in a labour-intensive manner.

Brick construction is increasingly being replaced by concrete. In the last 50 years, Kathmandu and the surrounding cities have developed at record speed and concrete has become the most widely used building material, while older buildings were traditionally still mainly constructed from bricks and without concrete. The topic of recycled concrete will therefore become increasingly important in Nepal in the future, as many concrete buildings will reach the end of their lifecycle and an enormous amount of broken concrete is expected.

The exchange with Nepalese experts opened up valuable perspectives on sustainable practices in the construction industry. The delegation trip was not only aimed at knowledge transfer, but also at building partnerships to strengthen the circular economy in the construction industry.

The expected results of this professional and cultural exchange include the promotion of resource-saving methods and additional exchange formats. By sharing best practices and understanding cultural differences in sustainable construction, the circular economy in the construction industry can continue to gain in importance and contribute to global sustainability in the long term. The participation of the Technical University of Munich also led to the discussion of exchange semesters for students.

What the German delegation immediately took away from the trip was the realisation that it is possible to process and store building materials in a confined space and that storage areas with associated processing and repair workshops are essential for the comprehensive reuse of building materials.

Delegation in Nepal | Photo: Pratistra Baidar

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