



GOOD PRACTICES

Banepa preserves traditional construction methods using bio-based materials

THE NEPALESE CITY REBUILDS ITS HISTORIC TOWN CENTRE – USING SUSTAINABLE MATERIALS SUCH AS WOOD AND CLAY.

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Background

The historic town centre of Banepa in Nepal extends along a road for a distance of around 1.2 kilometres. Many of the houses have been in poor condition, making the town less attractive.

Locals were initially sceptical about carrying out urban planning innovations using historical construction methods: many residents feared high costs, preferring concrete as a modern and supposedly safer building material in an earthquake-prone region. As the traditional building material here, wood is available in large quantities, but there is a lack of sustainable forest management.

The municipality is working with the Nepalese RP Foundation, which has over 25 years of experience in the renovation of historic buildings.

Connective Cities Dialogue Event on bio-based building materials

How can we build the cities of the future in a more climate-friendly way? This question was addressed during an international event held by Connective Cities in Potsdam from 13 to 15 November 2023. Ten municipalities – including Banepa – presented during the event, how they use organic materials or recycle and reuse materials to avoid steel and concrete that produce high levels of carbon emissions.

Objectives

The town of Banepa is restoring its historic town centre and building a retirement home in the traditional style. The aim is to preserve the traditional architecture that is typical of the region and revitalise the old town while at the same time contributing to sustainability and climate protection.

“In Nepal we still have a tradition of building with wood.” We must maintain this tradition and fuse it with modern building methods.”

Rabindra Puri, RP Foundation, Nepal

Restoring the historic town centre provides many people with a job, who would otherwise go abroad to find work.





Building with wood and bricks is not only sustainable, but also earthquake-resistant.

Activities

The municipality provides initial funding and adapts its regulations to enable the renovation of the historic town centre and the construction of the retirement home using historical construction methods. Owners of houses that are renovated receive tax relief as an incentive.

The houses are renovated to historical standards wherever possible. If this is not possible due to poor building fabric, as much of the existing material as possible is reused for reconstruction, using bricks, clay and wood.

In order to allay the concerns of the local population, the municipality is first refurbishing one building to provide an example of the methods that will be applied to the others. 3D simulations are being used, too. The city administration closely involves all population groups concerned in the planning and discusses with them topics such as economic efficiency, sustainability and earthquake resistance. The first phase involves the renovation of 30 buildings.

Impact

The refurbished historic centre of Banepa is a popular tourist attraction, and this benefits the local economy. Meanwhile the return to traditional values strengthens local people's sense of identification with the town. They are more open to the use of traditional building methods and recognise the sustainability benefits involved. The construction projects offer attractive jobs for people who would otherwise move abroad to work.

Conclusion

Bio-based building materials such as wood, bamboo, brick and clay are significantly more sustainable and earthquake-resistant than cement or concrete, and their increased use in the construction sector offers numerous advantages. Nonetheless, it is important to ensure acceptance of this among the population first.

Connective Cities – International Community of Practice for Sustainable Urban Development

Since 2013, Connective Cities promotes the worldwide exchange of municipal expertise, disseminates proven-practice solutions for sustainable urban development, and supports peer learning between German and international experts from municipalities, as well as the jointly development of project ideas within the framework of structured learning processes.

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