Secondary school with passive ventilation system, Gando, Burkina Faso

Project data

Project group Building and civil engineering works
Client Village community of Gando
Project background Private investment
Estimation start of construction May 2011

Main author

Name Diébédo Francis Kéré
Profession Architect
Organization Kéré Architecture/ Francis Kéré
City, country Berlin, Germany

Further author(s)

Not applicable

Comment of the Holcim Awards jury Africa Middle East

The jury commended this project because of its broad approach towards enhancing sustainable aspects of the program into a comprehensive whole. The Secondary School Gando is constructed by the local community and builds not only a series of structures, but also a sense of identity and enhanced social cohesion. Its "urban design" has the potential to act as an anchor point in the village structure. The project, as one element of a long-term school development, makes use of "high-tech" ideas that are implemented with low-tech means. It intelligently leverages the site's characteristics and locally-available materials. The project itself generates positive impacts both socially and environmentally, ensuring the educational opportunities created.

Project description by author

Burkina Faso is amongst the poorest countries in the world. With an illiteracy rate of over 80%, the majority of its people has no alternatives to agriculture. The village of Gando - with 3000 inhabitants - is situated 200km from Burkina Faso’s capital Ouagadougou. Born here as the son of the headman, Francis Kéré was the first to study abroad. He returned his knowledge as an architect into the urgently needed construction of a new school in his home village.

Guided by principles of sustainable development, Kéré stressed the importance of clay as one of the main building materials. The Gando school project taught the local people how to refine clay and local materials, and how different construction techniques could further improve the performance. In 1998 Kéré founded "Schulbausteine für Gando" to raise private money and government support to replace Gando’s dark and small school in 2001. The school today has more than 500 pupils. The education and the school is open to girls and boys regardless of their ethnic background, religion or social status. The construction is approved by local authorities, such as the village elders and the regional government. The school has its own land as construction sites. The project is funded by the registered association "Schulbausteine für Gando", in Germany, which acquires the funds through private donations. The project motivates the community through creating jobs and training in traditional techniques.

The newly shaded landscape creates a platform for meeting, learning and teaching with multiple sports fields. The buildings are cooled by a specially developed natural cooling system through the walls, ceilings and roofs. Reforestation is one of the key elements to enhance climate change. The school's design and climate concept through filtering the air it creates high-quality community space. Solar panels on the roof are being considered in the future. The climate concept uses only solar and wind energy, and does not rely on vulnerable technologies.

Innovation and transferability – Progress

The design and concept of the school demonstrates the potential of sustainable architecture in Africa. The project is planned to be built in three phases. The money for the first building phase is assured through the association. Negotiations with further sponsors for the last two phases in 2012 have already taken place.

Ethical standards and social equity – People

The buildings have not only an educational effect on young people who, for the first time, come in contact with the profession of an architect, but also a worldwide reputation for sustainable architecture in Africa. The simple design concept ensures the architectural aesthetics in detail by using low-cost, economically-constructor design, without any intricate details that cannot be learnt by locals.

Environmental quality and resource efficiency – Planet

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Economic performance and compatibility – Prosperity

Relevance to target issues by author

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