Yolanda Kakabadse, M. Psych. Catholic University, Quito, is Executive President of the Fundación Futuro Latinoamericano, Chair of the Scientific and Technical Advisory Panel of the Global Environment Facility (STAP/GEF), and Joint Coordinator of the United Nations Millennium Project Task Force on Environmental Sustainability. Previously she was president of the IUCN – the World Conservation Union. Founder of Fundación Natura in Quito in 1979, she helped the foundation become one of Latin America's most important environmental NGOs. Yolanda Kakabadse lives in Ecuador; she is a member of the Advisory Board of the Holcim Foundation.

The essence of sustainable construction

Yolanda Kakabadse

In many tropical countries, entire villages, country houses, barns, and other structures shared a common natural resource: bamboo. Constructions of all scales were dependent on this native material for centuries. Bamboo is not only a strong and flexible material, it is also aesthetically appealing. In regions vulnerable to earthquakes, bamboo also proves to be highly resistant to collapse. The material was easy to obtain and easily replaced when aged or damaged by weather conditions. In this respect, bamboo was always fresh and affordable. Why then was it replaced by other materials? Why did some cultures allow its near extinction?

The answer is not simple. As with so many processes related to development, such a question has many answers, some of which are based on facts and others on observation alone. Development and modernity have been closely associated with images of skyscrapers, large housing tracts, big cars, sleek sidewalks, vast stadiums or cultural facilities, all representing wealth and – unfortunately – a misunderstanding of what constitutes a "higher standard of living." Not only was bamboo lost in the wake of this momentum of progress, but with it traditions, local identities, and values.

In the race to imitate the attendant structures of modern progress, a new formal and material vocabulary was substituted for that derived from local resources. In many developing countries, the import of a new housing typology – i.e., huge, tall buildings, often with constrained spaces that engender unfamiliar patterns of behavior and relationships – generated new problems, namely, a weakened or nonexistent social network. The ingrained notion of neighborhood rapidly took on a different connotation. There was no longer any space favoring communal solidarity. Public space no longer was considered necessary for a public now at large. Services were limited to those who could afford them. The lack of vision endemic to decision makers – primarily those in government who promoted the replacement of traditional settlements with modern towns – gave birth to conglomerations of families and people with little or no cohesion.

As it so often happens with new trends and products, speculators in the market did not take into account the social impact when assessing the advantages and risks of substituting some materials for others. The actual challenge would have been to combine the best of both worlds. Factors such as population increase, urban growth, as well as unexpected forms of development all called for alternative models of housing at reasonable costs. For developers, however, low costs meant the production of few models and materials in the name of pragmatism. In the end, diversity was too difficult to manage.

But now at the beginning of the new century, the tendency to once again consider traditional values concerning materials and design is mounting as a counter response to monotonous constructions and homogenization of lifestyles of low-income communities. Directed mainly through the initiative of local leaders, communities are generating programs to recuperate construction traditions. "Sustainability" is the oft-used buzzword for such initiatives. If the word is not deployed, at least the ambition is there, for society cannot evolve within changing economic conditions if its cultural values are not recognized.

Current discussions on designs that integrate efforts to merge social dynamics with practical constructions are in themselves incentives to create and strengthen the social network of a community. New plans for housing must involve the community. In other words, stakeholders should be included in decisions made on form, scale, and material. Families are not only concerned with comfort; they also desire the opportunity for social interaction. Together with local leaders, social workers, and urban planners, architects have come to acknowledge the importance of traditional resources in relation to cultural values.

Bamboo is one such material. Economic incentives such as eco-tourism, urban development plans, educational programs, and other cultural directives are making use of and creating opportunities for those who invest in plantations. These incentives aim to bring bamboo back into the lives of people living in tropical countries. The same is occurring with other species of bamboo around the world as plantations have begun to flourish. Equally significant, new technologies are being developed in order to comply with present standards pertaining to safety and resistance without compromising the natural beauty of bamboo.

Bamboo is only one example of the importance of reconsidering the renewal of natural material resources in contemporary development. New generations are aware that the issue of sustainability is not a matter of "either-or" but rather of integrating the old and the new. The issue also entails the production of viable housing options for low-income communities. Participation is yet another theme. Not everything should remain in the hands of public officials. Instead, members of a community must be given the chance to identify and choose what constitutes a better solution based on past successes. Local wisdom is the essence of sustainable development.