Sustainable Infrastructure and Green Cities

This session addressed the planning, design, and investment aspects of sustainable cities and infrastructure. It focused on how to make green cities investable by integrating an architect's perspective of the whole ecology of green infrastructure projects with the investor's financial needs.

David Wood, Director of the Harvard Kennedy School's Initiative for Responsible Investment, moderated the session. Approaching the session's focus from the perspective of an institutional investor with a long-term investment horizon, he asked whether sustainable cities were a realistic investment option in terms of investment scale? One green building alone cannot generate positive externalities. Instead, he argued, they arise from the aggregation of projects and investments. The question for long-term institutional investors and policy makers then becomes: how can we move from investment in individual buildings and assets to coordinated sustainable cities? Cities themselves could also be part of the solution to environmental problems since they can function as centers for the generation of innovative ideas.

Pedro Haberbosch, a Partner in Forster + Partners, discussed the importance of approaching urban design from a planner's perspective. He presented on the environmental, social, and economic aspects of planning. These included how to deal with resources and waste; how to create effective community centers and an education infrastructure; and how to minimize the whole life cost of buildings and increase material efficiency. Several Foster + Partners infrastructure projects were presented to illustrate how these considerations were integrated into past and ongoing urban design. He also commented on various building rating systems in terms of sustainability and stressed the importance for investors to choose the right system. He recommended the Zofnass system, developed by the Harvard School of Design, which takes into account resources management efficiency, impact on ecosystems, effects on climate change, and quality of life.

Ken Yeang, Partner of the architectural firm Llewelyn Davies Yeang also emphasized the importance of systemic approaches to green designs. Looking at single buildings and solely focusing on accreditation was insufficient. Rather the whole ecology of the city and regional levels must be considered. Green design platforms must weave in four ecoinfrastructures: the engineering infrastructure which includes the energy system; the water infrastructure; the human infrastructure which considers human behavioral patterns; and finally nature's utility which includes resource preservation, bio-diversity, etc. He also commented on budget issues for green design and pointed out that green design can actually save money.

Shalini Vajjhala, from the United States Environmental Protection Agency, presented on how to link major architecture projects with the creation of investable sustainable cities. She discussed the US – Brazil joint project on sustainable cities which focuses on the city of Rio de Janeiro. Instead of concentrating on investments in individual and smaller projects, the funds employed in the project will be utilized to help produce a general approach to green city investment. The investment scale employed will take advantage of efficiencies that would not occur on a single project basis. Rather than using regulation as the primary tool for environmental harm prevention, planners will work with investors to create city investment mechanisms that integrate economic profitability and sustainable infrastructure. From an environmental regulators' perspective, instead of treating the environment as a context to be protected by regulators and a hindrance to investors, it will be approached as an investment opportunity that adds value by driving economic grown and improving the quality of life.

Hamid Tawfiki, the CEO of CDG Capital, talked about how his institution plays a role in Moroccan public development as a state owned financial institution. He noted that the main issues confronting the urban landscape in Morocco were providing affordable housing, improving cities' economic competitiveness, and building sustainable infrastructure to address water scarcity and other factors. He highlighted the case of Zenata, a green city that is being built to balance urban planning and environmental protection.