GARY LAWRENCE

Gary Lawrence is Global Leader for Sustainable Urban Development at design, engineering and business consultancy, Arup. Based in Seattle, Gary spends much of his time on the road providing thought leadership for strategic urban development and sustainable development throughout Arup's 86 global offices. Gary joined Arup in 2002 as an internationally recognized expert on urban strategies. He has more than 20 years experience assisting public sector, private sector and non-governmental organizations with research, analysis, strategic planning and implementing sustainable development concepts.

As the former Planning Director for the City of Seattle, Gary was responsible for development of 'Towards a sustainable Seattle', the first sustainability-focused municipal comprehensive plan in the world. The project was named by Time magazine as the most important public policy initiative of 1993. Gary subsequently advised the Clinton Administration, the British Prime Minister's Office, the UN and the Office of Economic and Community Development (OECD) on matters of sustainable development and environmental policy.

Dongtan Eco City Integrated Urbanism Design Approach

A Response to Uncertainty in the Face of Drivers of Change

The activities of urban settlements are key contributors to climate change factors. In parallel, global climate change and its current and potential consequences for life property and prosperity is now accepted as the major challenge for human society in the next 100 years. The translation of science into policy and practice that stems the acceleration of greenhouse gas production, particularly carbon, while also ensuring social and economic development is still in its infancy.

Drawing on lessons learned from the planning and development of a new, low-carbon eco-city on an island opposite Shanghai in China, this presentation explores the potential of an integrated urbanism approach. The objective being not only to mitigate factors contributing to climate change, but to manage risk, maximize resilience, and promote the successful economic and social growth of the urban community. We posit that no matter what the scale, integrated approaches – both in understanding the true nature of the issues and designing solutions – are predictive or more successful outcomes.

Global populations are growing creating stress on existing resources; sprawl consumes natural buffers making metro areas more vulnerable; distributed governance responsibility confounds coordinated planning; a successful global economy is dependent on the resilience of public infrastructure and the metropolitan labor market. An integrated urbanism approach to planning may give us the tools to leapfrog the environmental and public health costs of economic progress and create a new model for cities across the developing world.

Conventional planning processes tend to focus on one issue at a time and too often the impact of one system on another is ignored until the consequence becomes a reality. Arup has extended the internationally renown total design concepts developed in building engineering to planning with the goal of delivering better performance outcomes in cities. Arup's "integrated resource model" allows us to see how each change made in one system would ripple across the city plan and affect those systems that integrate with it. Implementation of this approach allows for:

- Creation of understanding and definition of sustainability as a socio-economic problem with technical attributes; not a technical solution with socio-political implications.
- Articulation of integrated design as a risk management strategy for disaster-resilience and continued economic and social prosperity.
- Challenging and leading a fundamental change in the way design professionals define problems and introduce the necessary skills to address them.

The assumptions and conclusions made in this paper are supported by extensive research into "Drivers of Change" conducted by Arup over the past five years.