Urban metabolism for the urban century

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Like organisms, cities need energy, water, and nutrients, and they need to dispose of wastes and byproducts in ways that are viable and sustainable over the long run. This notion of "urban metabolism" is a model for looking systematically at the resources that flow into cities and the wastes and emissions that flow out from them—to understand the environmental impacts of cities and to highlight opportunities for efficiencies, improvements, and transformation.

Yale University's *Journal of Industrial Ecology* is pleased to announce a special issue on Sustainable Urban Systems that focuses on the integration of engineered infrastructures, people, and natural systems in the pursuit of environmentally sustainable cities. Already more than half the world's people—and 80% of those in developed nations—live in urban areas, and reducing the environmental impact of these expanding cities is one of the greatest challenges facing society in the coming decades. At the same time, cities present crucial opportunities for the efficient use of resources and low impact ways of life.

"This is the urban century," said Sir Peter Crane, Dean of the Yale School of Forestry & Environmental Studies, "and the integrative perspective this issue provides is essential for the study of sustainable urban systems."

This special issue examines topics such as the contribution of cities to global warming, opportunities for better management of waste electronics and storm water, and the use and fate of phosphorus—a resource that is both potentially scarce and polluting. The special issue

presents research on 11 cities around the world including New York City, Delhi, Denver, Melbourne and London.

The *Journal of Industrial Ecology* is a bimonthly peer-reviewed scientific journal, owned by Yale University, published by Wiley-Blackwell and headquartered at the Yale School of Forestry & Environmental Studies. It is the official journal of the International Society for Industrial Ecology.

Chris Kennedy of the University of Toronto (Canada), Anu Ramaswami and Larry Baker of the University of Minnesota (USA), and Shobhakar Dhakal of the Asian Institute of Technology (Thailand) served as co-editors of the special issue.

More information: Articles in the special issue are freely downloadable for limited time at: jie.yale.edu/SUS

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