

Proposal to Form a Task Force on Rapid Urbanization



June 15, 2004
Roundtable on Science and
Technology for Sustainability
Annual Meeting

Presented by
Chuck Redman on behalf of
the Working Group for Rapid
Urbanization

(Cairo; T. Rashed)

Urbanization: focus for developing sustainable futures

- Half the world's population lives in cities.
- More than 90% of future global population growth will occur in cities.
- In the next 35 years, it will be necessary to double the urban infrastructure that took 5000 years to build.
- This is an unparalleled opportunity to shape the future



Marrakech; C. Redman

Cities and Mega-Cities

- 19 mega-cities with 10 million or more
- 22 cities with 5-10 million
- 370 cities with 1-5 million
- 433 cities with 0.5-1 million



Economic Realities

- Urban centers are the nexus of commerce and gateways to the world's economy.
- 80% of economic growth in developing countries will occur in cities.
- Yet 1/2 to 1/3 of all urban households in the world live in absolute poverty.



Phoenix; J. Fink

Urban Vulnerabilities

- Cities have become dominant in social, economic, political, and environmental processes; yet are subject to dramatic crises.
- Unemployment, environmental degradation, lack of services, inadequate housing, deteriorating infrastructure, and violence are all threats to the future of urban dwellers.



Delhi; A. Rahman

We Could be at a Turning Point

- Fast and unbalanced growth aggravates social exclusion: division between rich and poor, the formal and informal, the legal and illegal
- How could rapid urbanization contribute to improvements in well-being of the poorest households?



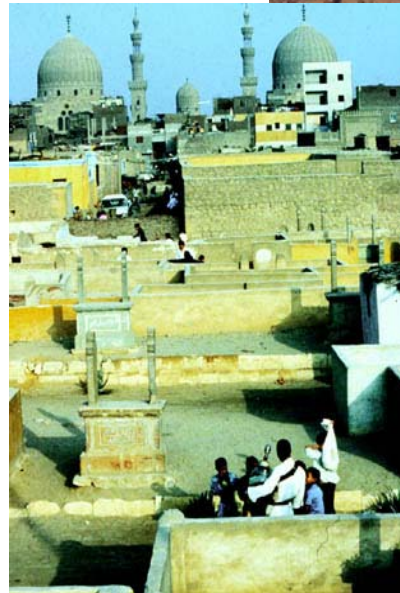
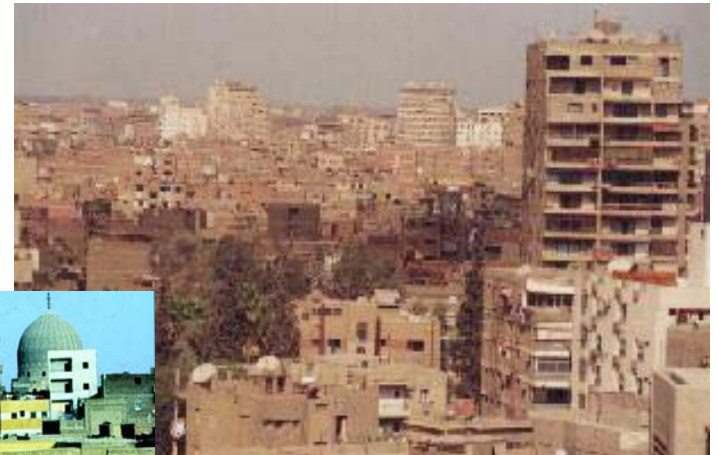
Chaing Mai; L. Lebel

Task Force Objective

To identify specific ideas and actions that would significantly enhance the contribution of science and technology in guiding rapid urbanization toward more sustainable pathways in both the immediate future and over a multi-decadal time scale

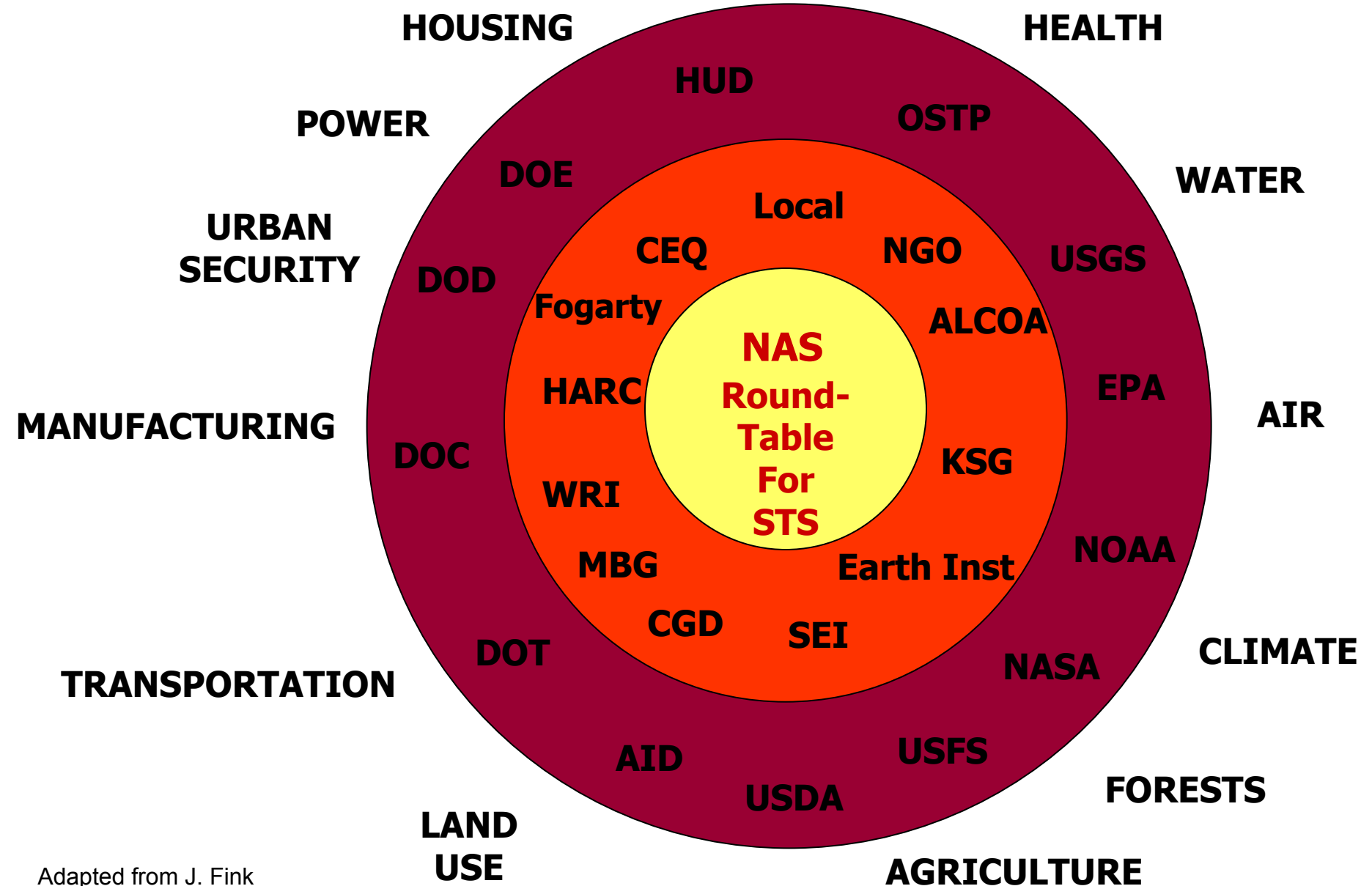
Task Force Principles

- *Science based*
- *Results oriented*
- *Stakeholder involved*



Cairo, T. Rashed

Is There a Locus for Urbanization Research?



Workshop Topic I: Improving Conceptual Approach

- Comprehensive view of patterns and processes
- Identify alternate growth trajectories; propose future scenarios
- Are there ways to enhance local identity in the face of globalization pressures?



Lima; C. Bussink

Workshop Topic II: Implementing New Technologies



Rif Mountains; C. Redman

- Supplying adequate clean water
- Delivering energy in a sustainable manner
- Housing and transportation keeping pace
- Monitoring and mitigating new contagious diseases and purposeful bio-terrorism
- Removing barriers and creating incentives so private sector will take the lead

Workshop Topic III:

Governance that Facilitates STS

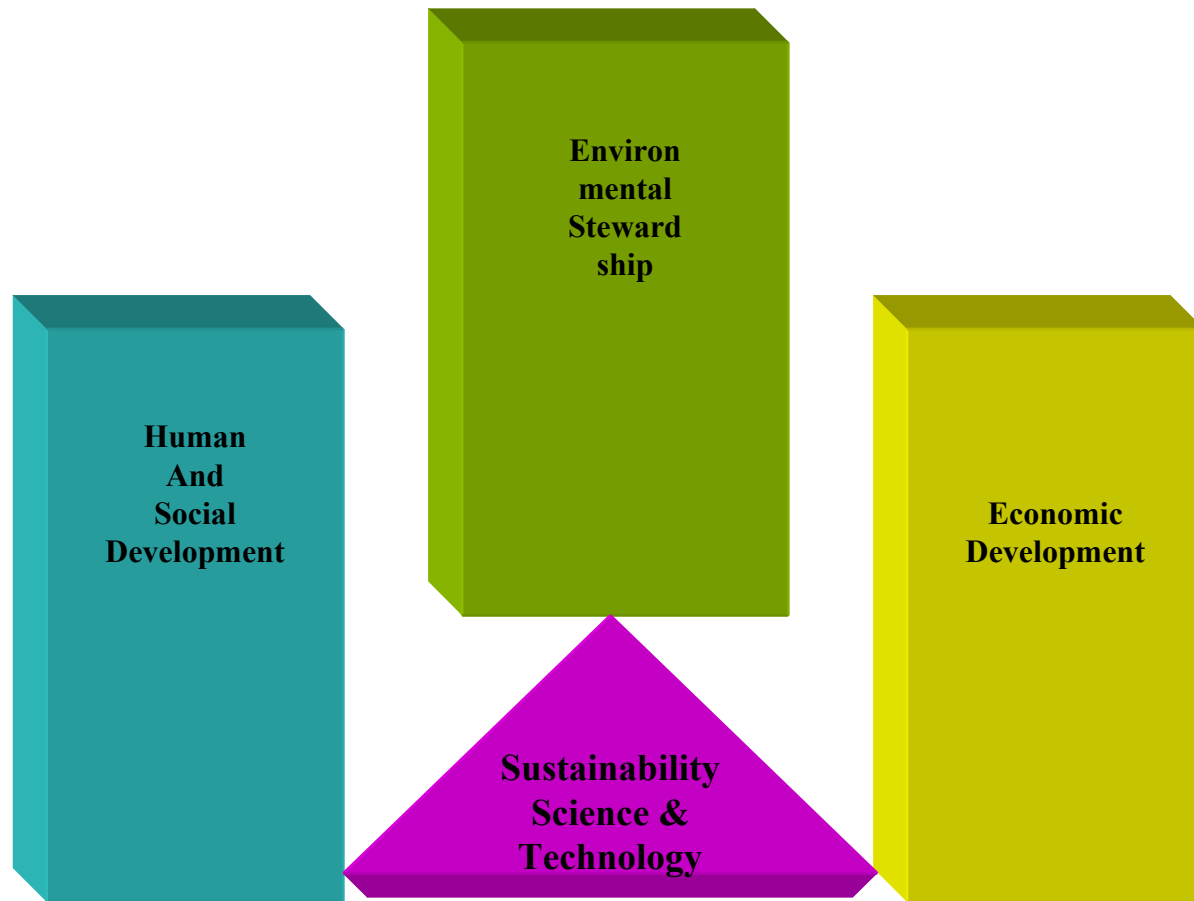
- How can positive aspects of urbanization be enhanced while diminishing inequality?
- How can science effectively become part of the decision-making process?
- How can we work within the system to create institutions based on sustainability?
- How can we prevent rapidly urbanizing regions from becoming hotbeds for terrorism and political instability?



Proposed Action Items

1. Select Roundtable members for Liaison Team
2. Select Core Task Force Members from all sectors, including stakeholders
3. Convene workshops on three topics areas with multi-sector participation
4. Prepare workshop summaries

Science and Technology as the Cornerstone for Sustainability



Adapted from M. Crow & HARC