

CREATING GLOBALLY SUSTAINABLY
RESPONSIBLE
URBAN REGIONS. AN ASIAN RESPONSE.

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THE CONTEXT.

1. END OF THE FIRST DECADE OF 21ST CENTURY
IT IS GENERALLY AGREED THAT 4
CHALLENGES ARE IMPORTANT

1. Challenges of Global Environmental Change

2. Reshaping of energy systems

3. Global economic volatility

4. Need for societal adjustment - production circulation
consumption.

Create a need a need to develop new ideas and new
Knowledge- “a plastic moment in history”

CREATING NEW KNOWLEDGE.

- 1. Emergence of new fields that transcend boundaries of existing academic disciplines e, bio-informatics, genetic biology
- 2. Creation of sustainability science aimed at understanding the fundamental character of interactions between human, natural and social systems in order to reconcile society's development goals with planets environmental limits.
- 3. There is still debate on what should be included in the field of “sustainability science”

MAKING SUSTAINABILITY SCIENCE WORK.

- 1. Transdisciplinarity.
- 2. Research Networks
 - national.. IR3S Univ Tokyo + 5 other Japanese universities
 - International.. Alliance for Global Sustainability.
- 3 Legitimizing the knowledge- people, actions policy. Institutional change

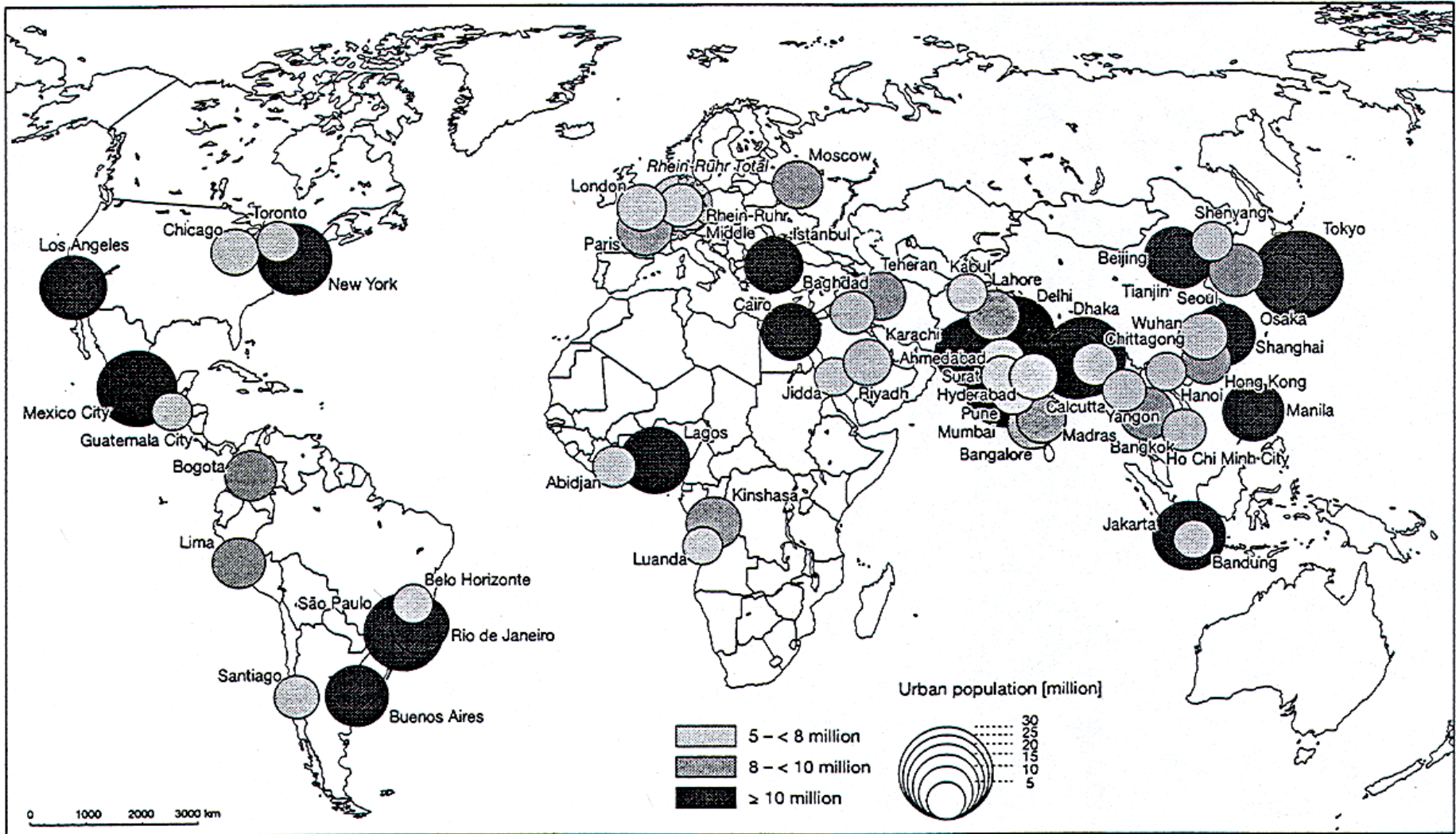
ESTABLISHING THE IMPORTANCE OF SUSTAINABILITY RESEARCH

- .THE CENTRALITY OF THE URBANIZATION PROCESS.
- 1. We now live in an urbanized world >50%
- 2 World 70% urbanized 2030-2050
- 3. Most urban increase in developing world- 76-80 per cent-60 % in Asia
- 4. Estimated that in 2000 urban places produced 75% of GHG's
- 5. Rural-urban relationships will change

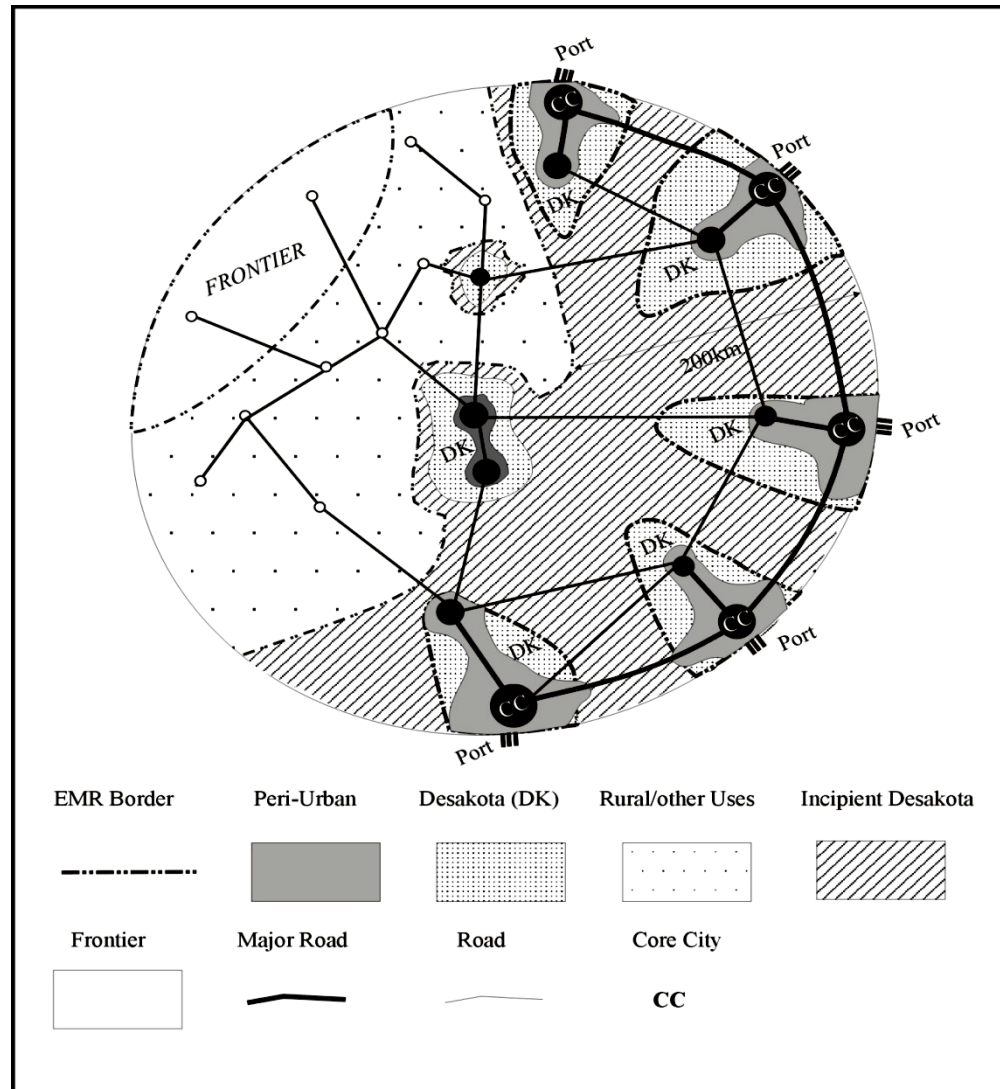
CHANGES IN URBAN SPACE

- 1. Growth of large urbanized regions
- 2. Changes in internal form of regions
- Poly-nucleated, corridors, large peri-urban
- 3. Present trend.80% of all urban growth in peri -urban

MEGA-URBAN REGIONS 2015



SPATIAL MODEL HYPOTHETICAL ASIAN COUNTRY



ESTABLISHING RESEARCH PRIORITIES

- Experience of Bali and Tainan Workshops provide
- 1 evidence of general acceptance of the central priority of developing sustainable societies in an urbanizing region of Asia
- 2 evidence of the creation of new knowledge of sustainability science.
- 3. Imp of building student, faculty and institutional networks
- evidence of disciplinarity but not yet trans-disciplinarity
- 4. Recognition of research clusters.

ESTABLISHING AN ONGOING RESEARCH PROGRAMME.

- 5 RESEARCH CLUSTERS/ THEMES EMERGE.
- 1.URBAN FORM. What are the most effective urban forms for large urban regions for societal sustainability.
- -Rural - Urban fusion hybridity - mixed land -use as opposed to segregated space
- - Poly-nucleated, corridors etc
- . - work and residence. The local community, culture
- . _ transactional space. Networks. E-communication e.g. Gifu Prefecture (Asahi)

RESEARCH PRIORITIES

- 2. URBAN SPACES AS SYSTEMS.
- 1. Research into the urban metabolism. Flows of resources and their use and part of an input-output model.
- 2. Identify spatial pattern of flows. Eg ecological footprint
- 3. Identify characteristics of flows. E.g., water/ resource, processing, distribution, consumption
- 4 Identifying dysfunctional points in flows for urban sustainability. e.g. Env. Impact Analysis.

RESEARCH PRIORITIES

- 3. CULTURE AND THE SUSTAINABILITY OF URBAN SPACES.
 - . A recurrent theme of research presentations is the emphasis on history and actions of local people in adapting, innovating and developing resilience in the face of threats to sustainability. Challenge of scale? Scaling-up to macro-urban region.
e.g..water. E.g. irrigation systems Bali, Taiwan, Thailand;
land-use systems Satoyama, etc.
Importance of local response. People participation
culture filters.

RESEARCH PRIORITIES

4 POLICY RESPONSES.

1. Need to develop new government, governance and management responses for sustainable urban space. Top down modernism replaced by “flat” organizational structures that merge government and governance through participation of all sectors of society.
 - Key concepts. Participation not mobilization; e.g. Brazil . Participatory budgeting.
 - Let the local innovate.” small is beautiful”
 - Collaboration and alliances use transactional capacities
 - . Building resilient and adaptive societies
 - . Where are the political scientists, sociologists and anthropologists in the programme at present?

RESEARCH CLUSTERS

- 5. METHODOLOGIES.
- 1. Research on how to develop transdisciplinarity in research on sustainability.
- 2. Experiment with team research with cross-cluster research project. National and international.
- 3. Change institutional structures e.g universities to reward transdisciplinarity

FUTURE PROGRAMMES

THREE COMPONENTS.

1. RESEARCH PROGRAMMES IN EACH OF THE FIVE CLUSTERS. Identify priorities e.g. urban form
2. CROSS RESEARCH CLUSTER RESEARCH ON CHALLENGES TO SUSTAINABILITY OF URBAN SPACE INCLUDE TEAMS MADE UP OF REPRESENTATIVE OF EACH “RESEARCH CLUSTER” ADDITIONS. Identify priorities. Climate change and urban space resilience and adaptation
3. NATIONAL-INTERNATIONAL NETWORKS INVOLVED. Already well developed
4. DISSEMINATION OF RESULTS. SCHOLARLY, POLICY AND POPULAR. Crucial