Northumbria Research Link

Citation: Grainger, Paul (2007) Sustainable communities: a case study from India. In: Housing Studies Spring Conference: Housing & Sustainability, 11-13 April 2007, York.

URL:

This version was downloaded from Northumbria Research Link: https://nrl.northumbria.ac.uk/id/eprint/511/

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: http://nrl.northumbria.ac.uk/policies.html

This document may differ from the final, published version of the research and has been made available online in accordance with publisher policies. To read and/or cite from the published version of the research, please visit the publisher's website (a subscription may be required.)

Northumbria University NEWCASTLE

University Library

Sustainable Communities: A case study from India

Paul Grainger, Northumbria University, School of the Built Environment

Housing Studies Spring Conference: Housing & Sustainability
York 11-13 April 2007

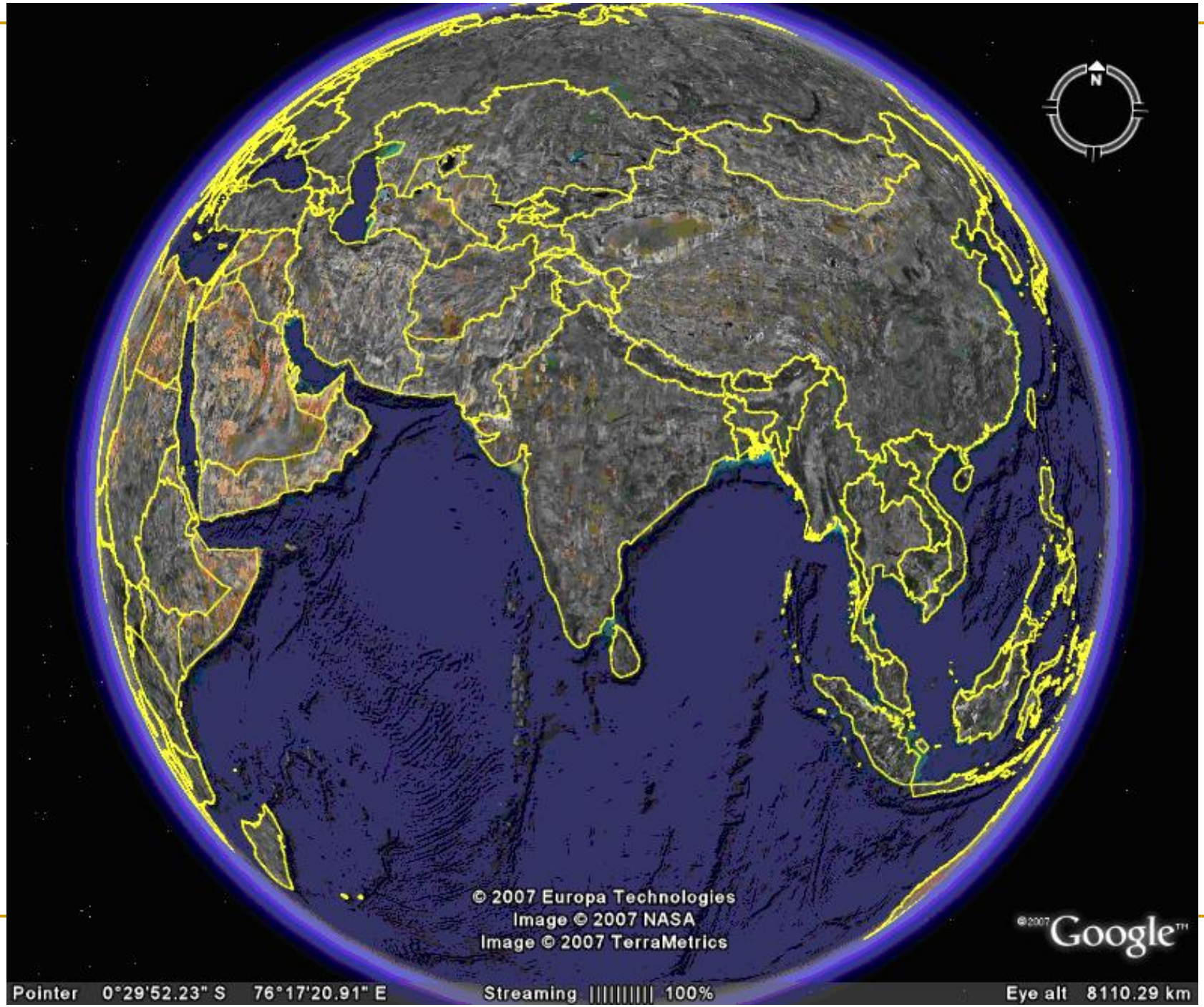
northumbria UNIVERSITY

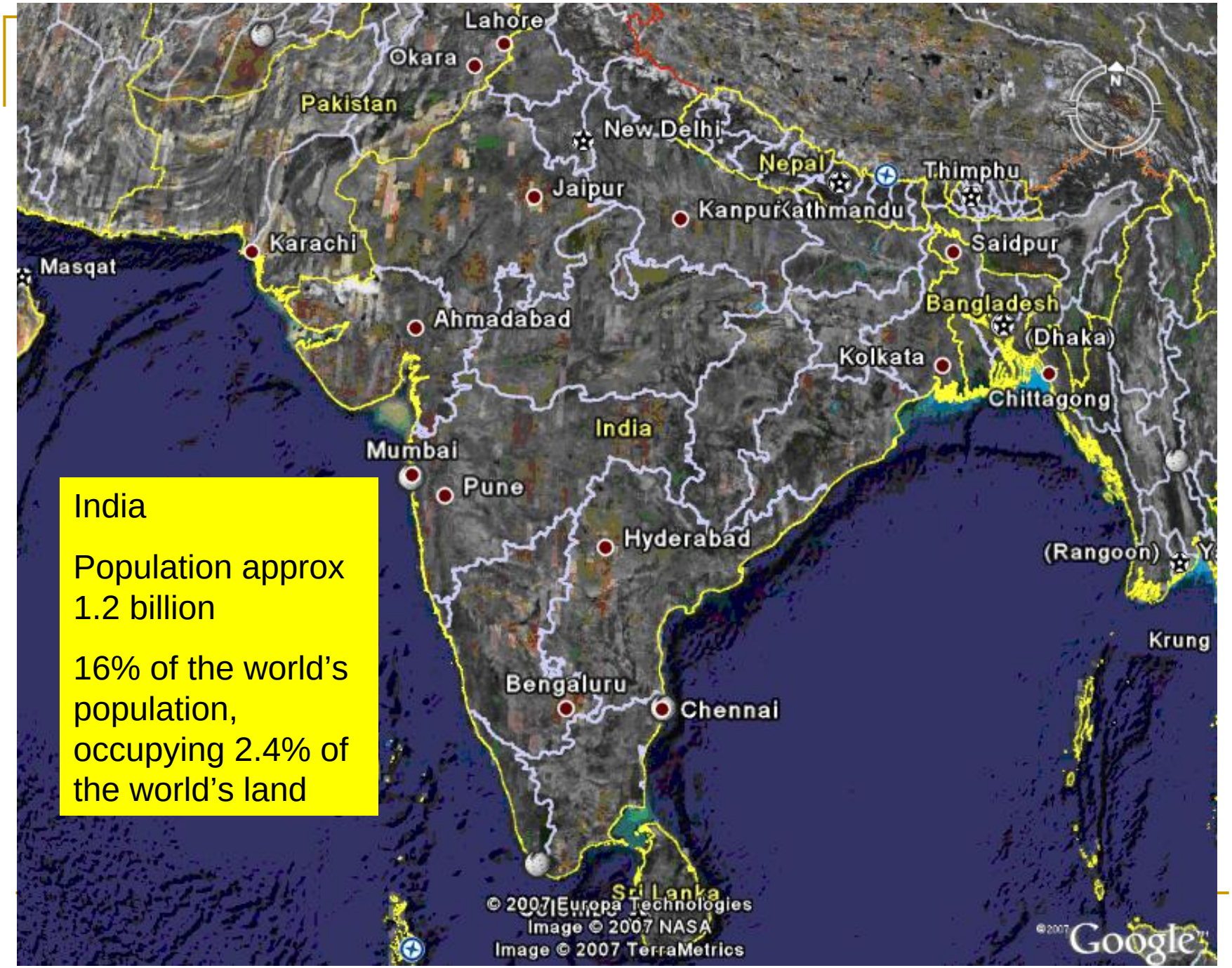
Introduction

- Debate around ‘sustainability’ with colleagues from ‘harder’ end BE disciplines
  - ‘suppose you gave a party and nobody came’
- Towards a definition of sustainability
- Practical appraisal mechanisms

Defining sustainability

- Dunlap et al (1978) “The New Environmental Paradigm’
  - based on notions of inter-generational sustainability
- Agyeman (2004) “Just Sustainability”
  - arguing in favour of an intra-generational element to a definition based on principles of social justice
- Sen – notion that any criteria for assessing sustainability should be context dependent
- *Learning to swim* – using some existing UN & UK definitions but aspiring to develop more culturally specific approaches


N
© 2007 Europa Technologies
Image © 2007 NASA
Image © 2007 TerraMetrics
©2007 Google™
Pointer 0°29'52.23" S 76°17'20.91" E
Streaming 100%
Eye alt 8110.29 km


Lahore
Okara
Pakistan
New Delhi
Nepal
Thimphu
Jaipur
Kanpur
Kathmandu
Karachi
Masqat
Saidpur
Bangladesh
Ahmadabad
(Dhaka)
Kolkata
Chittagong
India
Mumbai
Pune
Hyderabad
(Rangoon)
Krung
Bengaluru
Chennai
Sri Lanka
India
Population approx 1.2 billion
16% of the world's population, occupying 2.4% of the world's land
© 2007 Europa Technologies
Image © 2007 NASA
Image © 2007 TerraMetrics
Google

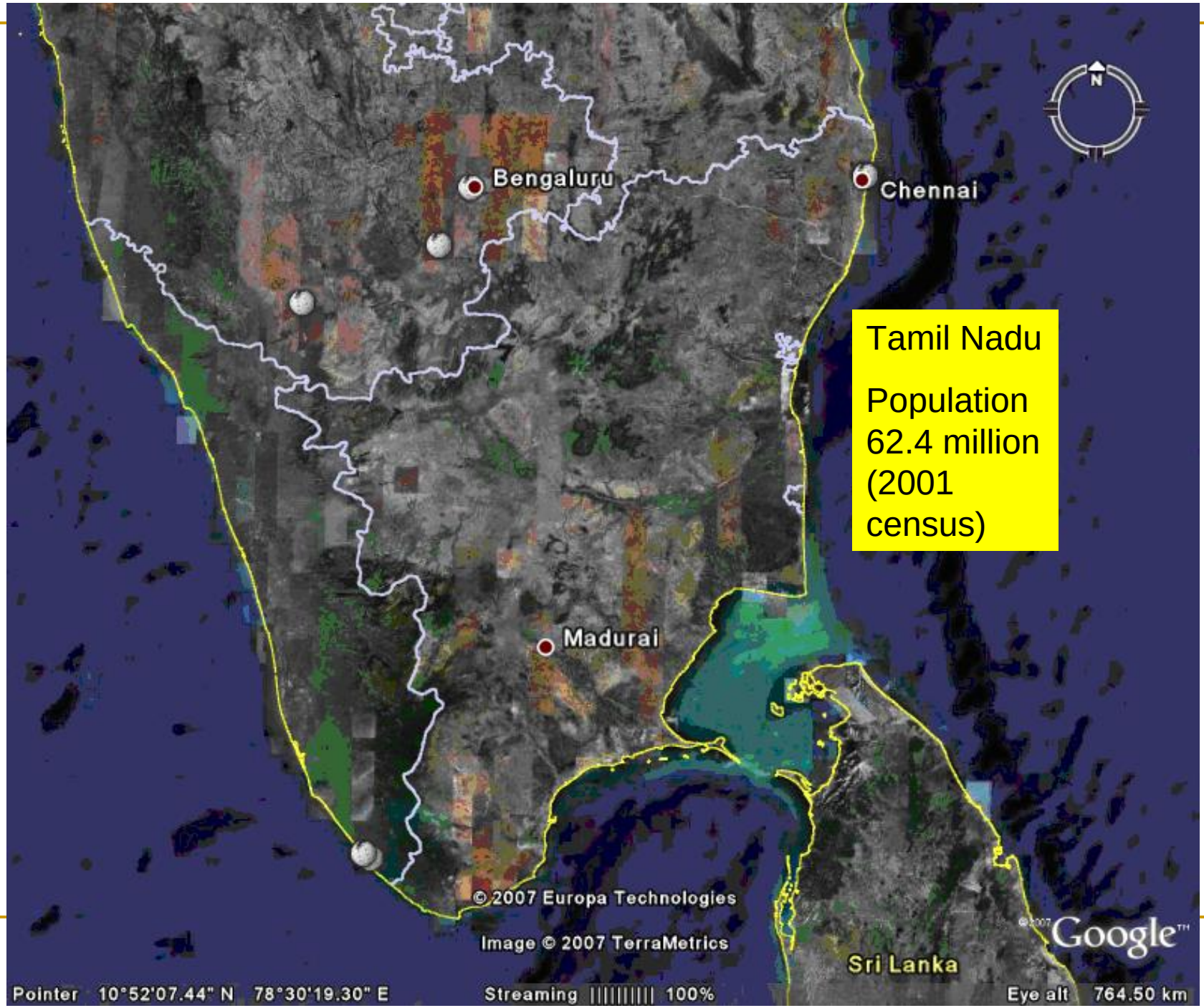
India

- 28 states & 7 Union Territories
- 1.3 million sq miles
- Economy worth $515 billion (2004 estimates)
  - Forecast to grow 5% per annum for next 45 yrs
- Services sector produces almost 50% of GDP
  - Increasing the urban middle class
- Increasing use of air con
  - Tokyo 3C increase in temp due to air con use
  - Each 1C led to 3% increase in energy use

(Prof Shane West, Auckland, NZ)

India

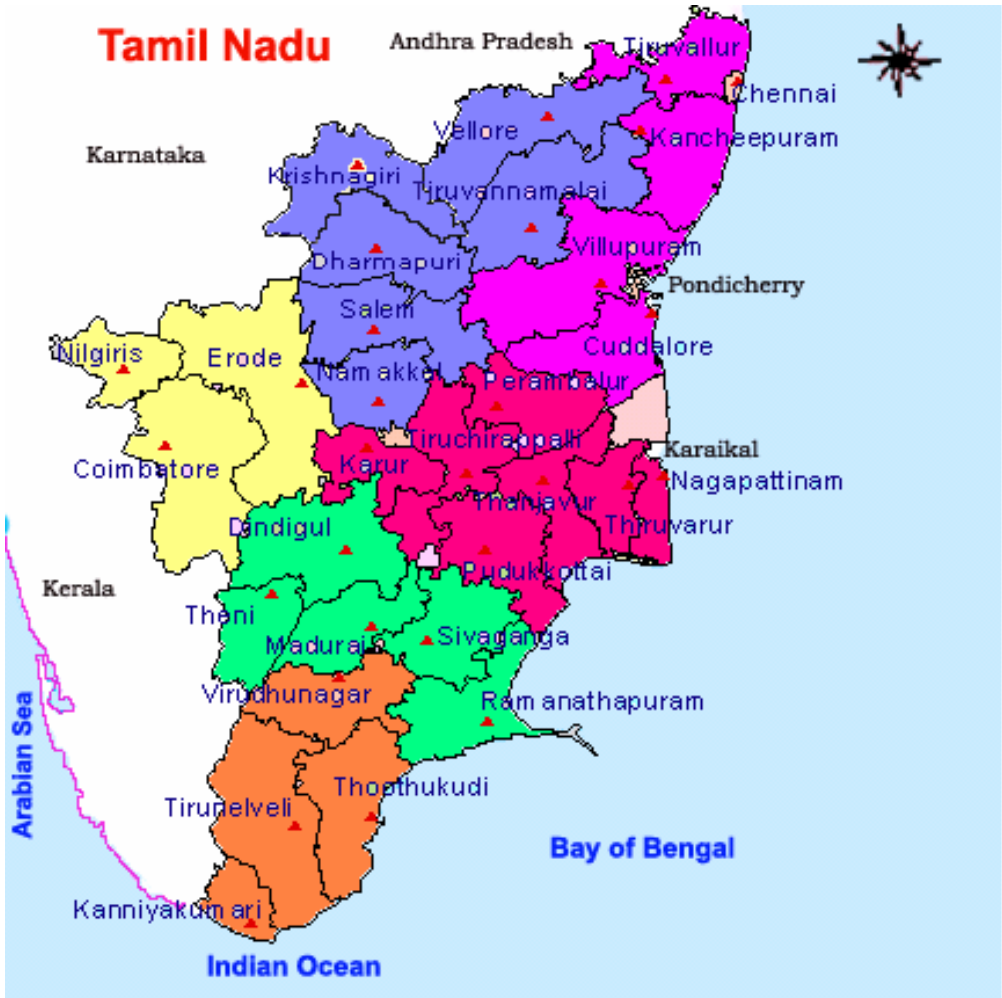
- However, mainly agrarian country
- 700 million of 1.2 bn population in rural areas
- 300 m live on less than $1 per day
- Housing shortfall of 22.7 million
- Wide income gap between rich and poor
- Child labour still rife


Bengaluru
Chennai
Madurai
Sri Lanka
Tamil Nadu
Population 62.4 million (2001 census)
© 2007 Europa Technologies
Image © 2007 TerraMetrics
Google™
Pointer 10°52'07.44" N 78°30'19.30" E
Streaming 100%
Eye alt 764.50 km

Tamil Nadu Slum Clearance Board

43.86% of TN population live in urban centres (63 major towns) – 2.87 million slum dwellers (20% of total population of the towns)

10% of the State's population live in the Chennai Metropolitan Area



Chennai

- Fourth largest metropolitan city in India
- First developed as a port city
- Subsequent development of labour intensive industries
- Rapid urbanization
- Population drawn from rural areas
- Exorbitant rent in the city
- Result: Rapid rise in slums/squatter settlements

Tamil Nadu Slum Areas (Improvement & Clearance) Act, 1971

Objectives

- To clear all the slums in Madras (Chennai) and to provide self contained hygienic tenements.
- To prevent the growth of slums and encroachments
- To prevent the eviction of slum dwellers by private owners and to provide the slum families with security of tenure.
- To provide basic amenities incl. water supply, street lights, storm water drains, sewer lines to the slum areas.

Chennai Slums

- Old tenement housing in extremely poor condition
- Overcrowding of existing housing
- ‘encroachments’ being built alongside tenements
- Poor fresh water facilities
- Poor/no sewage/waste removal
- Poor educational opportunities
- Large scale unemployment

Chennai Slums

Chennai Slums

Chennai Slums

SERVO

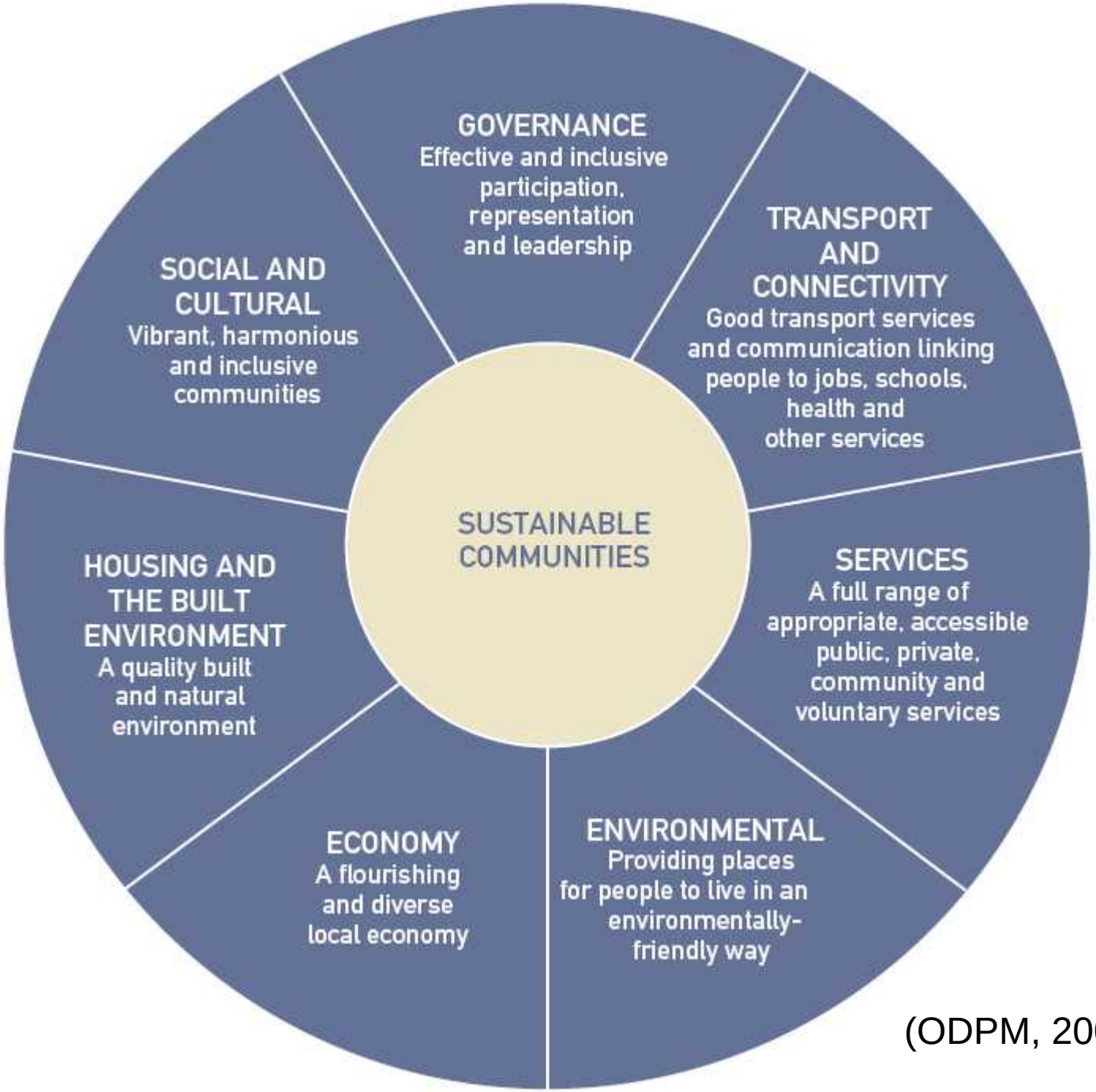
Case study

- Earlier measures to develop new settlements had limited success
- Case study – Semmancheri
  - 500 x 2 storey dwellings
  - To house 2000 people
  - In 20m^2 per family of four
- Rehouse slum dwellers and Tsunami affected
- Indian Govt/TN state grant account for 75% of cost
- Remaining 25% paid by residents
  - Typically 25year mortgages
  - R250 per month (approx £3)

A framework for considering sustainability

Ecological	Economic	Social
Natural hazards Atmosphere Oceans, seas and coasts Land Freshwater Biodiversity	Global economic partnership Economic development Consumption and production patterns	Poverty Governance Health Education Demographics

(Adapted from UNCSD, 2007)



(ODPM, 2004 p.19)

A framework for assessing the case study

- Housing & the Built Environment
- Economy
- Environmental
- Services
- Transport & Connectivity
- Social & Cultural
- Governance

Housing & the Built Environment

- Case study - Semmancheri

- New housing developments
- One room apartments
- Separate wash rooms
- Secure electricity supplies
- Affordable – government grants
- Rainwater harvesting on all dwellings

Housing & the Built Environment

Economy

- Shops
- Nursery, primary & secondary schools
- Transit schools
- Employment initiatives
- Entrepreneurship training for women
- ‘Trading premises’ supplied
  - Unit Cost : Rs 30,000 (approx £350):Rs 15,000 mobile bunks
  - Subsidy : 50%
  - Cost Recovery: 50% in monthly instalments

Economy

Economy

Environmental

- New housing
- Water supplies
- Sewage treatment system
- Infrastructure for removing storm water
- Central park/planting
- Street lighting

Environmental

Services, Transport & Connectivity

- Regular water supply deliveries
- Shops
  - 2 Ration Shops (essential commodities at Government subsidised prices);
  - 45 Convenience Shops
- New roads for access
- Regular bus services to/from city centre

Services, Transport & Connectivity

Social & Cultural: Community Facilities

- 8 Nursery Schools; 2 Primary Schools; 1 High School
- 3 Vocational Training Centres
- 1 Community Hall
- 18 Parks/ Children's Play Areas
- 291 public fountains
- Information centre
- Bus Terminus
- Cremation ground

- Despite being a very religious region of a very religious country, no places of worship
  - likely to follow through private endeavour?

Governance

- Development led by Slum Clearance Board, an arm of the Tamil Nadu State Government
- Partnerships between TNSCB and various others:
  - State Water supply/sewage & Electricity Boards
  - State Education Department
  - NGOs (grass roots orgs involved in community development, education and employment initiatives)
  - Some Private Sector involvement (principally MTC India (Modern Technologies Corporation))
- Semancherri fits within the electoral and administrative structure of the state.
  - The elected village council (*gram panchayat*) is the basic unit
  - Village council chairs serve as members of the block council (*panchayat samiti)*

Conclusions

- Semmancheri development appears to ‘tick’ many of the (UK centric) Sustainable Communities framework criteria ‘boxes’
- Potential model for other development
- Ongoing research/appraisal to show whether successful – likely to include factors such as
  - Ongoing affordability
  - Resident turnover
  - Ongoing employment
  - Viability of schools/shops/services
- Need to work with TNSCB/local stakeholders to establish culturally specific definitions of sustainability

Bibliography

- Agyeman, J and Evans, B (2004) " 'Just Sustainability': The Emerging Discourse of Environmental Justice in Britain?" *Geographical Journal,* 170:2 pp155-164
- Dunlap, R.E. and van Liere, K.D., (1978)
- HM Govt (2005) *Securing the Future: Delivering UK Sustainable Development Strategy*, HMSO
- Mari Bhat, P.N. (2001) *Indian Demographic Scenario 2025*, Institute of Economic Growth, New Delhi, Discussion Paper No. 27/2001
- ODPM (2004) *Egan Review: Skills for Sustainable Communities*, ODPM, London
- Sivam, A. & Karuppannan, S., (2002) 'Role of state and market in housing delivery for low income groups in India', in *Journal of Housing and Built Environment*, 17: 69-88
- United Nations Commission on Sustainable Development, (2007) *Indicators of Sustainable Development*, Third Edition
- www.census.tn.nic.in/ [accessed 18/1/07]

Acknowledgement:

Thanks to U. Manimekalai, Deputy Planner with the Tamil Nadu Slum Clearance Board for her help.

Also to Bineesh Anthony, Postgraduate Geography Student at the University of Madras for his assistance as a tour guide.

Sustainable Communities: A case study from India

Paul Grainger, Northumbria University, School of the Built Environment

Housing Studies Spring Conference: Housing & Sustainability
York 11-13 April 2007

northumbria UNIVERSITY