Sustainable land information for sustainable development

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Commonwealth Peoples Forum, Malta, November 2005
This Presentation

Why is land information necessary for sustainable development?
What added value can good land information offer others working in the field?
Why does land information have to be sustainable?
How can sustainable land information be collected, maintained and used for the benefit of all?
Why is this not happening everywhere?
Current initiatives to create sustainable information infrastructures
What can you do?
Why is land information necessary for sustainable development?

The 7 Triads of Sustainable Development (GDRC)

At No. 5: Knowledge and Information

“Sustainability is about managing knowledge and information - with appropriateness, timeliness and accessibility”
Why is land information necessary for sustainable development?

Agenda 21 Chapter 40 Information for Decision-making

The need for information arises at all levels, from that of senior decision makers at the national and international levels to the grass-roots and individual levels. The following two programme areas need to be implemented to ensure that decisions are based increasingly on sound information: (a) Bridging the data gap; (b) Improving information availability.

And

The gap in the availability, quality, coherence, standardization and accessibility of data between the developed and the developing world has been increasing, seriously impairing the capacities of countries to make informed decisions concerning environment and development.
Why is land information necessary for sustainable development?

The Bathurst Declaration on Land Administration for Sustainable Development

• Came from an International Workshop on cadastral infrastructures for sustainable development held in Bathurst, Australia in 1999
• Organised jointly by the UN and the International Federation of Surveyors
• 20 recommendations
• A few quotes from the text……
Why is land information necessary for sustainable development?

“If relevant and good decisions are to be made by public authorities, private resource users or community bodies, they must be based on sound information about the land and environment in order to contribute to sustainable development.”

Rec 3: “A global commitment to investing in the …. dissemination of land information required to achieve these reforms;”

“Good land information underpins good governance”
Why is land information necessary for sustainable development?

Experts are saying it is important:

• Agenda 21 (United Nations)
• The 7 Triads of Sustainability (Global Development Research Centre)
• The ‘Bathurst Declaration’ (Joint United Nations - FIG)

And in the real world, evidence and case studies:

• Nigeria
• UK
Ibadan, Nigeria

Low density

Medium density

High density

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Sustainable Communities, UK: The Thames Gateway

- The largest regeneration zone in Western Europe
- Investments in schools, sports facilities, business opportunities, health, arts and training centres, libraries, nature parks, theatres, and sustainable transport links.
- The Gateway has 1.6 million residents and approximately 700,000 households, averaging 2.4 people per household.
- Over 17% of it is previously developed land ‘brownfield sites’
- development potential of the Gateway lies in its location next to the economic heart of London and on the route of the increasingly accessible markets of North West Europe.
Sustainable Communities, UK: The Thames Gateway
What added value can good land information offer others working in the field?

• The G factor – location, location, location
• New insights
• Integration – horizontal, vertical, and along a timeline
• Cross-disciplinary approach – meet and work with your peers!
• Efficiencies, effectiveness
• Higher level of confidence in decision-making
What added value can good land information offer others working in the field?

The State of Karnataka, India
Land Information System called BHoomi

For the land owner:

- ‘Kiosks’ provide access to records
- Land records provided in 2 minutes, not 30 days
- Removed corruption in land dealings - now transparent

For everyone:

- Result is reduction in times to get loans, get utilities, change ownerships, subdivide parcels
- A better functioning land market
- Ability to access the collated records at State level
- Ability to use with other datasets

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Why does land information have to be sustainable?

Expensive to collect  
+  
Useless if out of date  
=  
**Must be maintained at reasonable cost**
The added value of location information

Location information (Ordnance Survey products and services) underpins £100 billion of national GDP

For an operating cost of £66 million

Ratio of 1:1500

Source: OXERA report 1999 using 1996 figures
Why does land information have to be sustainable?

Athens after the Olympics
Major investments made in the infrastructure
Plans for future sustainability less clear
Why does land information have to be sustainable?
How can sustainable land information be collected, maintained and used for the benefit of all?

Key principles:

• Collect once at appropriate level and use many times
How can sustainable land information be collected, maintained and used for the benefit of all?

Key principles:

• Collect once at appropriate level and use many times

• Use common identifiers to integrate data

295473989
DGT654DO087
12 St Anne Street
12 St Anne’s Street
12 St Annes Street

294836HU76439

10010011000011

56702847hf
Linking Through Identifiers

**Citizen**
- **ID:** 9876 (secret)
- **Name:** Mr Smith
- **Refs:** 1234

**Property**
- **ID:** 1234
- **Address:** 1, Merrymap Way.
- **Refs:** 010, 009, 011, 013, 014.

**GPS Coordinate**
- **X:** 345678m
- **Y:** 456789m
- **Ref:** 009

**Conservation Area**
- **ID:** 9012
- **Refs:** 001, ..., 010, 009, etc...

**Land Registration**
- **ID:** 5678
- **Owner:** Mr Jones
- **Refs:** 010, 009, 011, 013, 014, 004, 003, 017, 002, 005, 008, 007, 006.

**GPS Coordinate X:** 345678m  **Y:** 456789m  **Calculating…**

**Ref:** 009

**Location Found Calculating…**
How can sustainable land information be collected, maintained and used for the benefit of all?

Key principles:

- Collect once at appropriate level and use many times
- Use common identifiers to integrate data
- Define and implement the concept of data custodianship
How can sustainable land information be collected, maintained and used for the benefit of all?

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How can sustainable land information be collected, maintained and used for the benefit of all?

Key principles:

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• Make appropriate use of technology and skills
• Plan for data maintenance when collecting
How can sustainable land information be collected, maintained and used for the benefit of all?

Key principles:

- Collect once at appropriate level and use many times
- Use common identifiers to integrate data
- Define and implement the concept of data custodianship
- Make appropriate use of technology and skills
- Plan for data maintenance when collecting
- Use standards where appropriate
Why is this not happening everywhere?

Lack of land information
Inconsistent or incompatible information
No one knows where to find information
Poor coordination of land administration functions
Traditional tools and techniques are inappropriate
Information is not passed between users horizontally or vertically
and ...
and ...
Current initiatives to create sustainable information infrastructures

What is an information infrastructure?
Spatial data infrastructures – the basics

- Standards
- Policies
- Technologies
- Institutional arrangements
- Reference data
- Metadata
Nationally, some examples...

Australia

South Africa

India

Malaysia

Japan
Pan-nationally

Pan-national SDI initiatives in:

- Asia Pacific
- Africa
- Americas
- Europe (INSPIRE)
Locally

Many examples of initiatives at municipality and local authority level around the world…..e.g.

• Delaware State, USA
• Nairobi City, Kenya
• North Rhein Westphalia State, Germany
What can you do?

Everyone:
  • Be aware of the role of good land information

Collectors/ creators:
  • Consider how to maintain it and link it to other data

Investors/ government:
  • Realise the value it adds and invest in it!
The 7 Triads of Sustainability - GDRC Website

Many and various papers from FIG events - FIG website

Sustainable Communities material - UK Office of the Deputy Prime Minister

The Geography Jigsaw – RICS Foundation

Thank You!

Agenda 21- UN website

Oxera Report – Ordnance Survey website

Property Identifiers – DNF Expert Group

and finally

Google, for finding me so much information!
Thank You!

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