

**First Forum
Seoul, Republic of Korea, 24-26 October 2011**

**Challenges in Geospatial Policy Formulation &
Institutional Arrangements ***

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Australian Government

Geoscience Australia

Challenges in Geospatial Policy Formulation & Institutional Arrangements

An Australian Government Perspective



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1st High Level Forum on Global Geospatial Information Management
Seoul, Republic of Korea, 24-26 October, 2011

GEOSCIENCE AUSTRALIA

The “bottom up” approach...
what we have always done!!

Australia - Summer 2010-11





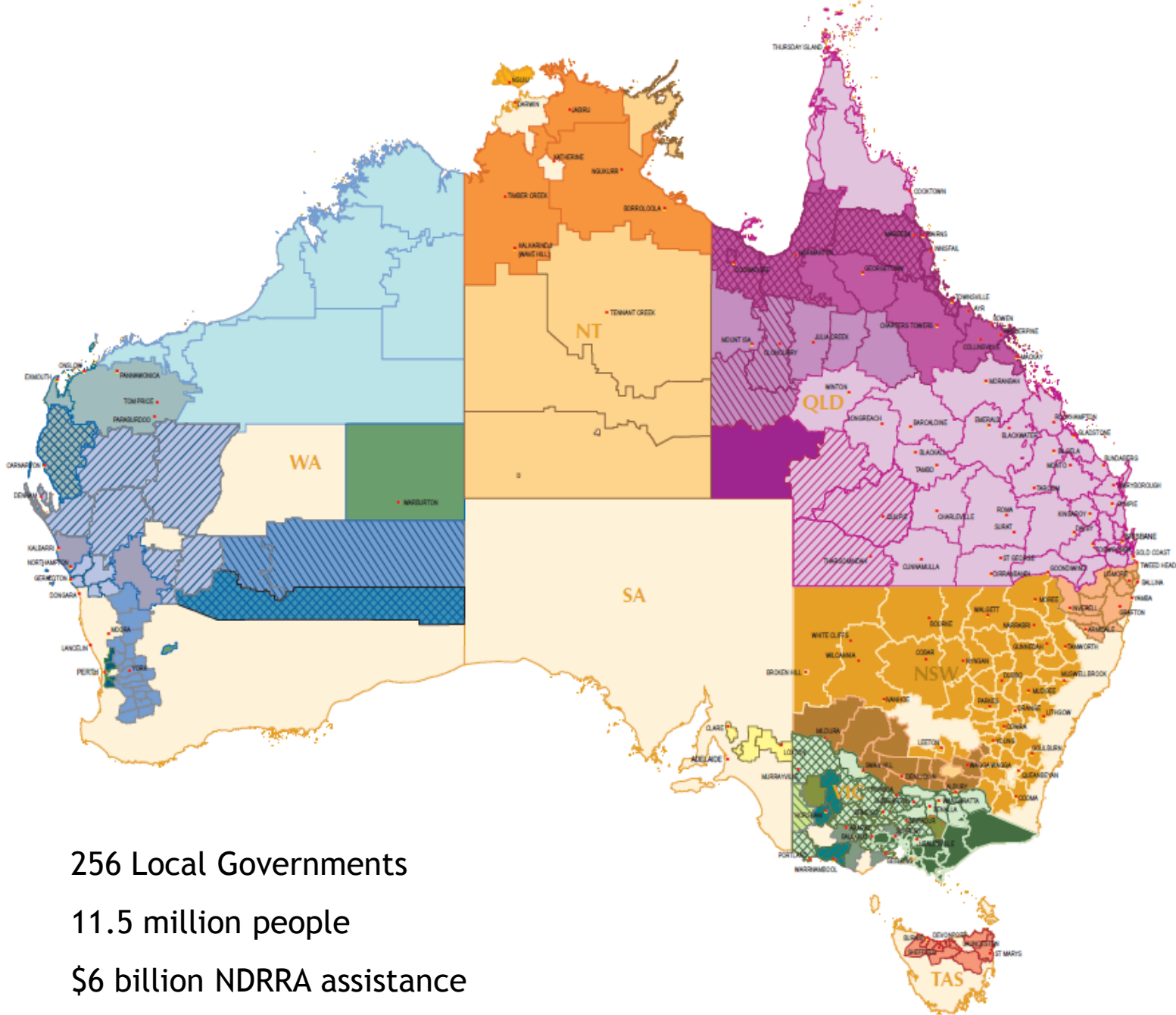
Australian Local Government Areas
Designated for NDRRA Assistance
November 2010 - March 2011

Disaster Declaration	LGA Population	
SA	4 LGAs	51,811
QLD	73 LGAs	4,421,783
VIC	76 LGAs	5,399,759
NSW	79 LGAs	1,183,808
WA	54 LGAs	463,263
TAS	11 LGAs	145,386
NT	9 LGAs	128,660
Total		11,814,384

Population figures represent the total population of all Local Government Areas (LGA) that may be eligible for a range of Commonwealth assistance. The total population indicates the maximum number of people who may receive assistance. However in many LGAs the total number of people requested may represent a smaller proportion of the total LGA population. This may show administrative areas and estimated surface water. It does not depict the actual flood area.

Population figures sourced from ABS Estimated Resident Population as at June 30 2008.

Local Government boundaries sourced from ABS Local Government Area



256 Local Governments
11.5 million people
\$6 billion NDRRA assistance

• Township

LGA Event and Date

- SA Severe weather 7-8 December 2010
- NSW Flood January 2011
- NT Monsoonal trough December 2010 - February 2011
- NT Tropical Cyclone Carla February 2011
- NT Combined monsoonal trough December 2010 - February 2011 and Tropical Cyclone Carla February 2011
- WA Floods November 2010 to December 2010
- WA Severe thunderstorms January 2011
- WA Severe thunderstorms 10 and 11 February 2011
- WA Severe thunderstorms and associated flooding 19-20 February 2011
- WA Tropical Cyclone Dorian and associated flooding February 2011
- WA Tropical Cyclone Carla and associated flooding February 2011
- WA Combined Tropical Cyclone Carla and associated flooding February 2011 and Floods November 2010 to December 2010 and Canberra floods 18 - 24 February 2011
- WA Combined severe thunderstorms and associated flooding 19-20 February 2011 and Floods November 2010 to December 2010
- WA Combined Tropical Cyclone Carla and associated flooding February 2011 and Floods November 2010 to December 2010 and Canberra floods 18 - 24 February 2011
- WA Combined severe thunderstorms and associated flooding 19-20 February 2011 and Floods November 2010 to December 2010
- WA Combined Tropical Cyclone Dorian and associated flooding February 2011 and Floods November 2010 to December 2010
- VIC Floods November to December 2010
- VIC Floods 28 December 2010 to January 2011
- VIC Flooding February 2011
- VIC Combined floods November to December 2010 and floods 28 December 2010 to January 2011
- VIC Combined floods November to December 2010 and flooding February 2011
- VIC Combined floods 28 December 2010 to January 2011 and flooding February 2011
- VIC Combined floods November to December 2010, floods 28 December 2010 to January 2011 and flooding February 2011
- QLD Floods November 2010 to February 2011
- QLD Tropical Cyclone Yael
- QLD Combined floods November 2010 to 2 February 2011 and Tropical Cyclone Yael
- QLD Monsoonal Flooding 28 February - March 2011
- QLD Combined floods November 2010 to February 2011 and monsoonal flooding 28 February - March 2011
- QLD Combined Tropical Cyclone Yael and monsoonal flooding 28 February - March 2011
- QLD Combined floods November 2010 to 2 February 2011, Tropical Cyclone Yael and monsoonal flooding 28 February - March 2011
- NSW Floods November to December 2010
- NSW Floods 28 December 2010 to January 2011
- NSW Floods February 2011
- NSW Combined floods November to December 2010 and floods February 2011

Australian Government: Geospatial

- We did not share well
- We were not fully aware what each agency was doing. We were effectively ‘disconnected’
- We did not link location information to our spatial data
- We were not using authoritative fundamental base data
- Data discoverability, access and governance was minimal
- There was an expectation that accurate, real-time, high resolution imagery and mapping existed, and could be accessed when and where needed
- Significant gap in ‘thinking’ between policy/decision making and the geographic based evidence

Geospatial information challenges



State emergency response operational information



Is the right assistance getting to the right people in a timely manner?

Commonwealth assistance

Community reality



Why do we continue to have these challenges?

- No policy or governance
- No institutional arrangements
- No structures or mechanisms to engage
- No agreed frameworks and/or principles
- No understanding of the value that GI could offer

- Based on informal networks - who knew who
- Limited understanding of what was needed
- We could not get the dynamic, high value 'fit for purpose' data to the users

But we have been working on it.....

The “top down” approach...
what has been missing!!

What Government wants to know

How do you increase the resilience of the community?

How do you understand the risk to infrastructure?



Where do you rebuild for the future?

How do you reduce the financial impacts?



Australian Government

APS 200 Location Project

Positioning Australia with Geography and Place

Achieving Australia's Location Policy & Governance

December 2010 – July 2011

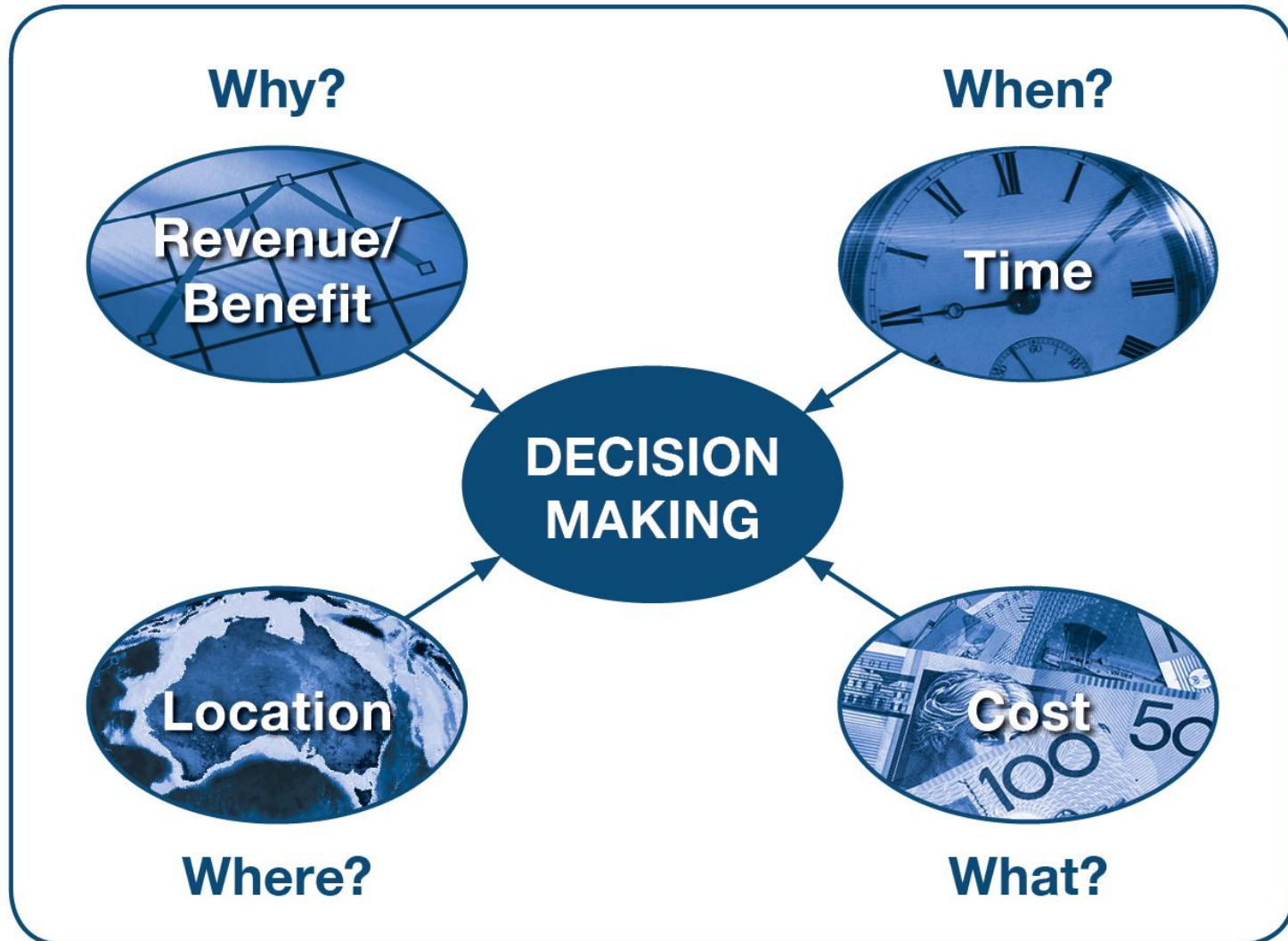


Linking information to location

Government is facing a number of key issues and challenges today and into the future



Location – 4th driver for decision making



The value proposition for Government



Linking Government information agenda and national priorities to location

VISION	<i>Australian Government information is linked to a location, improving decision making and service delivery, and increasing innovation and productivity</i>						
OUTCOMES	Sustainable Environment		Innovative & Productive Economy		Safe & Secure Australia		Social Inclusion
STRATEGIC GOALS	Inform policy development & decision making			Drive service delivery		Engage & inform the public	
NATIONAL DRIVERS	Water security Climate change Environment		Agriculture Energy Defence		Emergency management Tourism Health		Education Social services Regional Australia Budget Infrastructure Workforce
PRINCIPLES	Good Governance	Fundamental Location Data	Stewardship & Custodianship	Access & Sharing	Standards & Interoperability	Licensing & Investment	Capacity & Capability
INDICATORS	Establish a policy lead Develop & implement a governance structure Leadership to build & sustain	Identify framework datasets Geocode information to location Consistent & maintained datasets	Accountable data management practices Recognised custodial responsibilities Delivery of consistent data	Promote information sharing principles Improved access & availability of data Consistent data catalogues	Agreed standards & guidelines Develop standard geographies Consistent metadata Interoperability principles defined	Appropriate licensing Commitment to Creative Commons licensing Invest in life-cycle data management	Build skills & knowledge resources Improve & standardise capability across agencies Improve analytical capabilities

Location information framework

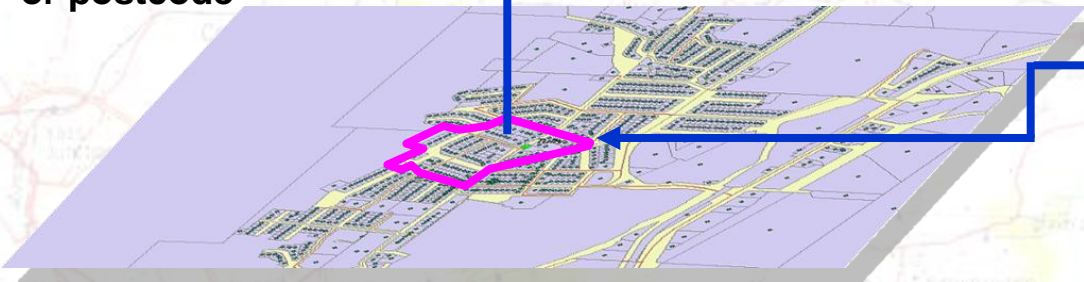
Analysis and aggregation across geographies



Aggregated to LGA or higher



Aggregated to suburb or postcode



Location information at address level



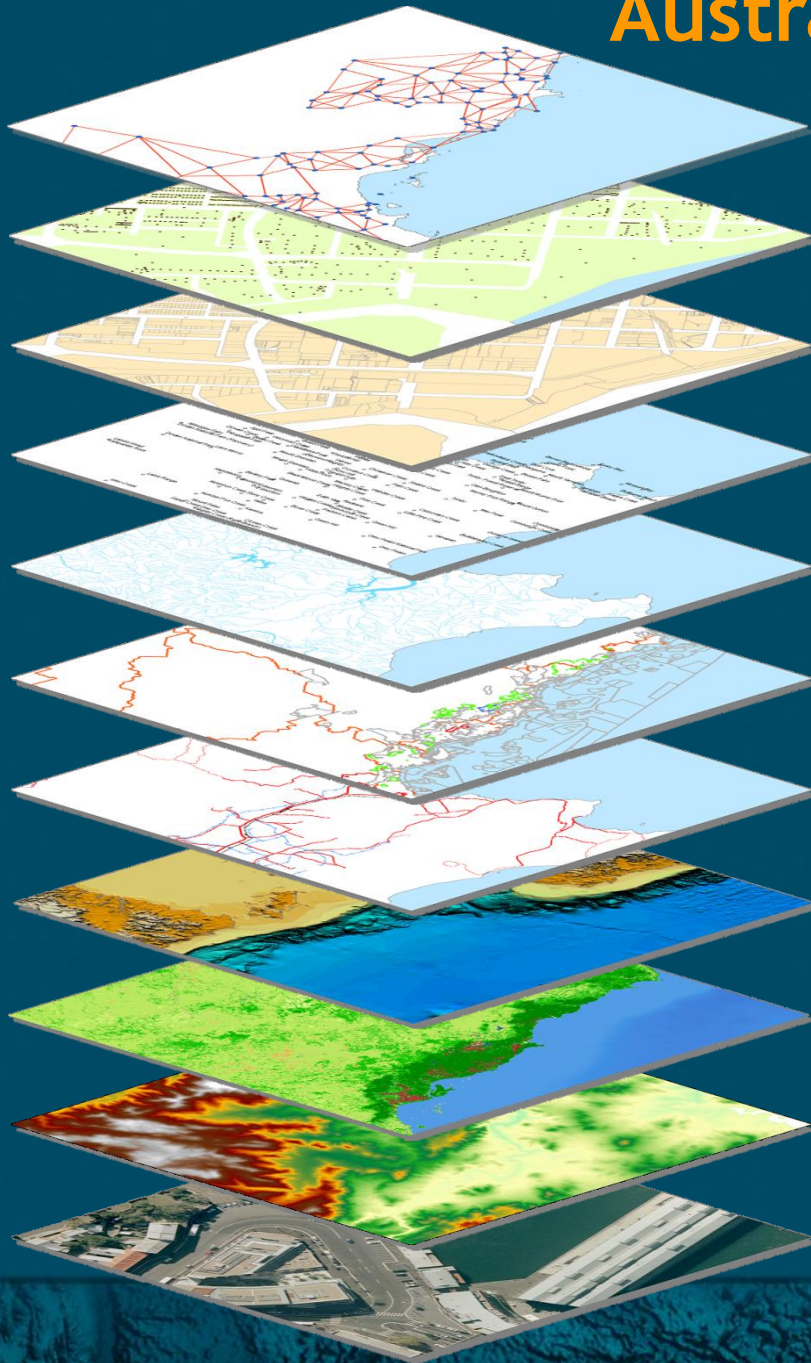
Geocoded unit level data

25 Smith St = x,y: 35.5676, 135.6587



Linking information to location

Australia's framework datasets



Positioning (Geodetic)

Address (GNAF)

Cadastral (Tenure)

Names (Gazetteer)

Water (Hydrology)

Administrative Boundaries

Transport

Bathymetry (Hydrography)

Land cover (Vegetation)

Elevation

Imagery

Summary: For UN-GGIM consideration

- Target the value proposition
 - Informed policy development
 - Evidence based decision making
 - Improved service delivery
- Loosely coupled approach
 - Frameworks and principles - start with strategic
 - Standards and interoperability are the glue
 - Make the information available and sustainable
 - Understand the role of authoritative data & custodianship
 - Fundamental datasets are the core building blocks
- BUT...remember
 - The developing nations require people/funding support
 - The objective is more than just mapping & geography - consider everything!