



Permanent Committee on GIS Infrastructure
for Asia and the Pacific (PCGIAP)

Established in 1995 by a United Nations Resolution



Spatially Enabled Society: Developments in Asia-Pacific

Greg Scott

Chair

PCGIAP WG 3

Spatially Enabled Government & Society

FIG Congress 2010

Sydney, Australia, 11-16 April 2010

GEOSCIENCE AUSTRALIA

18th UNRCC-AP Resolutions, October 2009

"Spatial Enablement and the Response to Climate Change and the Millennium Development Goals"

1. Regional geodesy
2. Capacity building in disaster management
3. Data access
4. Data integration
5. Spatially enabled government and society
6. Annual forum on land administration
7. Global geographic information management
8. 19th UNRCC-AP

Strong emphasis on disaster management - a tangible driver for spatially enabled society in the Asia-Pacific region

GEOSCIENCE AUSTRALIA

18th UNRCC-AP Resolutions, October 2009

"Spatial Enablement and the Response to Climate Change and the Millennium Development Goals"

WG1: Regional Geodesy Technologies and Applications

WG2: Geospatial Data Management and Service

WG3: Spatially Enabled Government and Society

Strong emphasis on disaster management - a tangible driver for spatially enabled society in the Asia-Pacific region

GEOSCIENCE AUSTRALIA

WG3: Spatially Enabled Government & Society

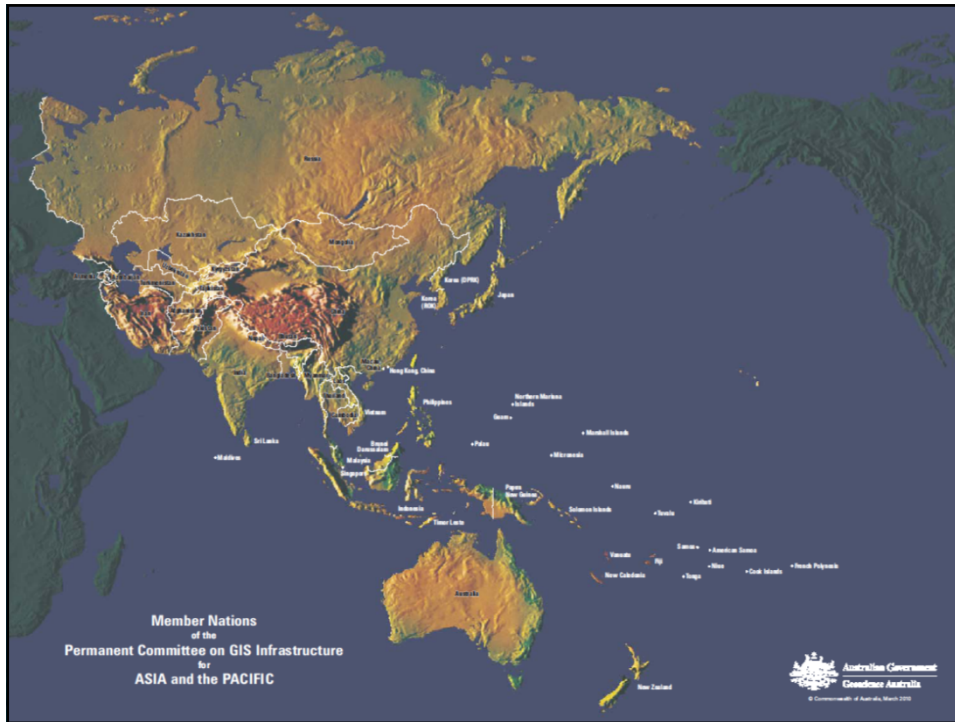
The 18th UNRCC-AP recognised the:

- Benefits of having access to data in times of disaster for assessment & relief
- Ongoing difficulties of many member states in accessing all forms of spatial data, remote sensing & land administration for disaster management
- Importance of the integration of fundamental data with other spatial data, including hazard & exposure data sets in support of disaster mitigation & reduction
- Power of spatial tools in integrating various data from many sources & multiple formats, & that the discovery, access, integration & delivery of geospatial data can become much easier with enhanced interoperability

The 18th UNRCC-AP recommended that:

- PCGIAP undertake a study to understand, compare & determine the state of spatially enabled government & society, including levels of maturity & governance of SDI, in the region
- PCGIAP formalises & maintains its annual forum on Land Administration in Asia & the Pacific

GEOSCIENCE AUSTRALIA

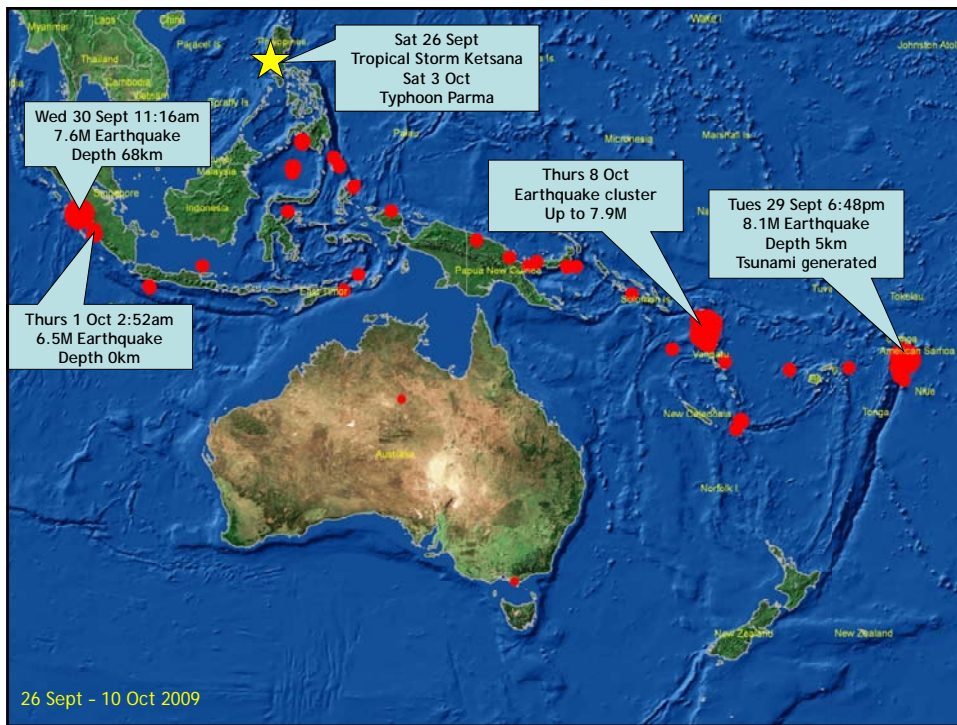


Asia-Pacific: A region in need

- Region frequently subjected to many natural hazards
- 60% of world's population in 56 countries
- Population and urbanisation is growing - megacities
- Development unplanned and in the most vulnerable regions
- Disasters are common with many countries affected by multiple hazards
- Countries with high population densities at high risk
- Mega-disasters have happened...and will continue
- Disaster risk reduction is an emerging priority, and recognised by national leaders
- The effects of climate change is an unknown variable
- DRR is a major driver for a spatially enabled Asia-Pacific

Permanent Committee on GIS Infrastructure
for
ASIA and the PACIFIC

Australian Government
Coesoon Australia





Spatially enabled society?

- GI is now recognised as an invasive enabling technology, generating and liberating copious amounts of data and information – building the ‘evidence base’ for informed decision making
- SES, SEG and SDI are common terms used in developed nations. In the developing nations they are NOT
- Many challenges remain for the global GI community as it works together to remove barriers, particularly in institutional and legal systems in developing countries
- Every country should have access to the ‘road map’ to develop SDI capacity and capability
- This capacity should not just be provision of fundamental data, but should also contribute to building capability in areas of disaster management, climate change, economic growth, and sustainable development

GEOSCIENCE AUSTRALIA

WG3: Spatially Enabled Government & Society

So what are we doing about it?

Using a number of case studies as exemplars, WG3:

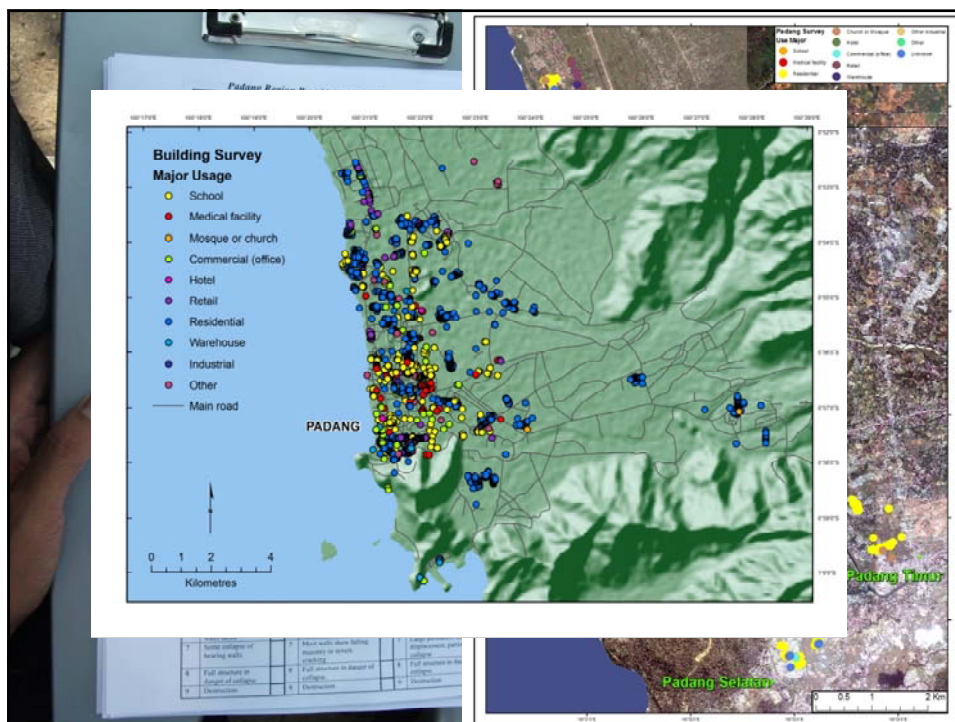
- will demonstrate and foster data sharing, access, interoperability, administrative and political capacity and capability building; and
- will develop the necessary processes and procedures to enable PCGIAP member nations to improve access to timely geo-information to support disaster management; to
- understand and pursue the principles of data integration and delivery within the context of spatially enabled society

Attempting to create the road map!!

GEOSCIENCE AUSTRALIA

West Sumatra earthquake

- April 2009: AIFDR established in Jakarta
- 30 Sept. 2009: 7.6M earthquake off West Sumatra
- Widespread damage to buildings, 130,000+ destroyed or severely damaged
- 1,000+ lives lost in Padang and districts
- AIFDR initiated a post-disaster building damage assessment
- Understand importance of construction type and quality for earthquake mitigation
- 4,000+ buildings assessed, 70 people, 3 weeks
- Particular emphasis on schools and medical facilities – several hundred assessed
- First systematic damage survey for input into community risk assessment undertaken



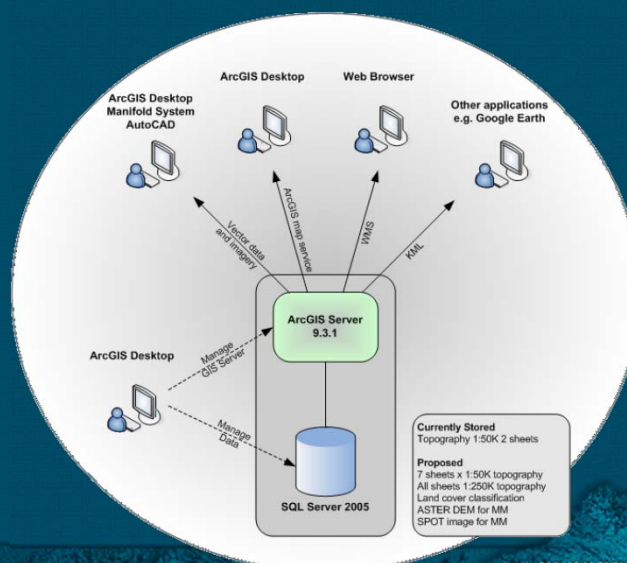
Spatial Data Development & Delivery in the Philippines

- AusAID and GA have supported DRR in Philippines since 2007
- Developed long-term partnerships with Philippine technical agencies to support CSCAND and National Disaster Coordination Centre
- Concerns about the availability and accessibility of appropriate fundamental data for hazard and risk assessments
- Outcome: GA provide targeted technical assistance to NAMRIA:
 - Assist NAMRIA to improve their data validation system
 - Develop an internal NAMRIA Spatial Data Infrastructure strategic and implementation plan
 - Pilot a small 1:50K topographic data spatial database and build a simple Intranet web-map interface to this data
- Develop a strategy to produce a national exposure information system to support DRR and climate change planning

GEOSCIENCE AUSTRALIA

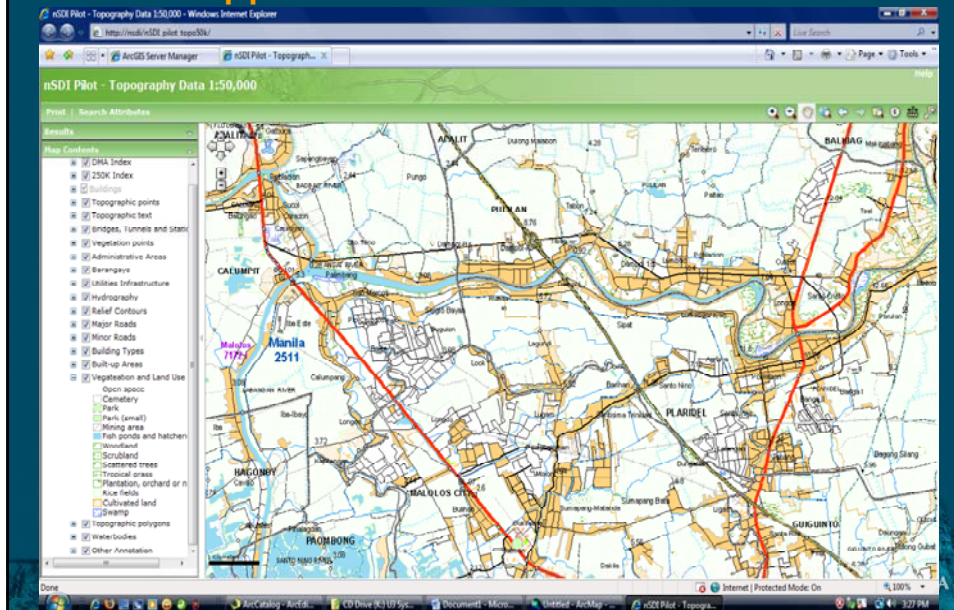
Spatial Data Development & Delivery in the Philippines

nSDI Pilot Overview



GEOSCIENCE AUSTRALIA

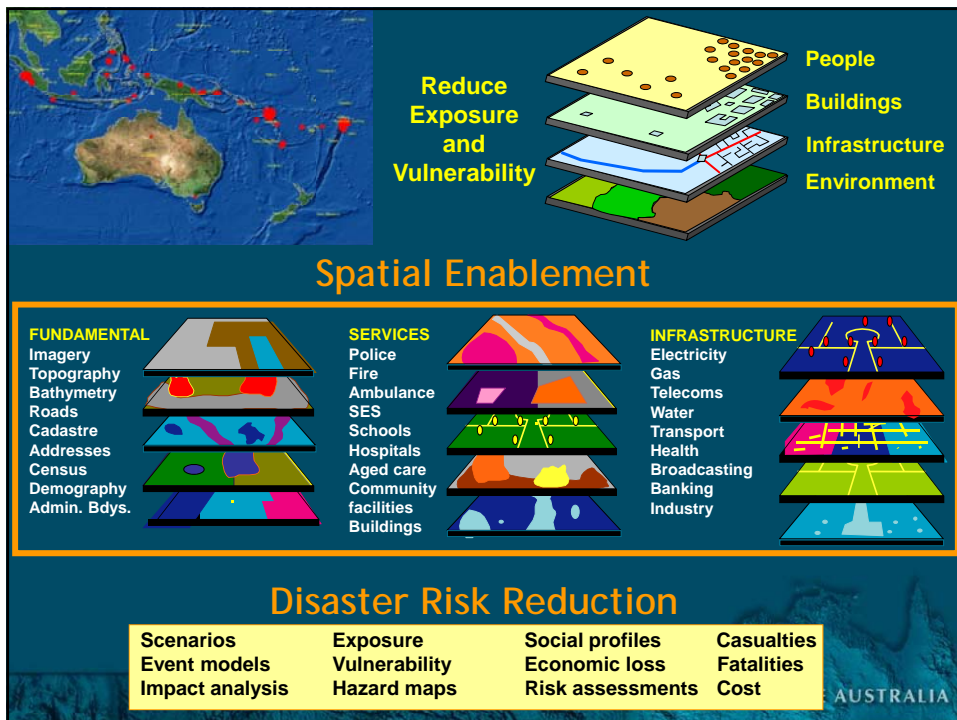
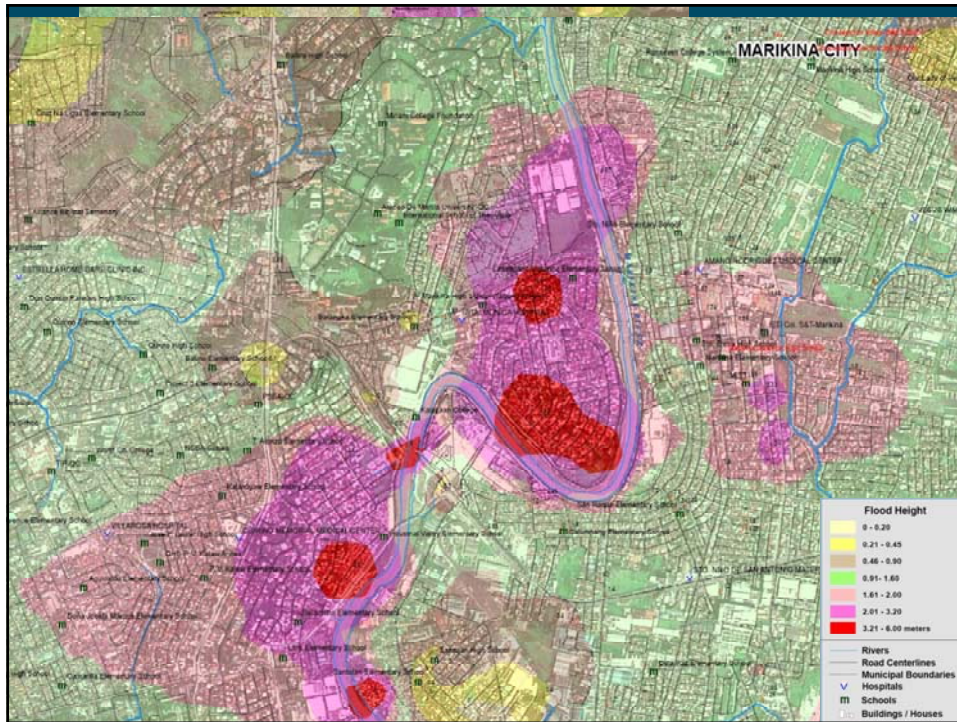
Spatial Data Development & Delivery in the Philippines



TS Ketsana, Manila

- Descended on the greater Manila area, Laguna and Rizal on 26 Sept. 2009
- Not strong in terms of wind intensity, but 420mm of rain in 24hrs
- 241 deaths and total damage PhP3 billion
- Uncontrolled urbanisation – poor planning, insufficient floodways, drainage clogged, infrastructure and settlements encroaching on natural waterways, informal settlers on riverbanks and hazard areas
- AusAID and GA scoping mission (29 Oct – 6 Nov), visited technical agencies
- No coordination: key datasets, tools and information required
- Recommended comprehensive program of hazard and risk assessment to improve knowledge







Permanent Committee on GIS Infrastructure
for Asia and the Pacific (PCGIAP)

Established in 1995 by a United Nations Resolution



Preparatory Meetings of the Proposed United Nations Committee on Global Geographic Information Management

GEOSCIENCE AUSTRALIA

Consultative Meeting on GGIM

Convened Sunday 25 October 2009, Bangkok, Thailand

14 countries:

Australia, Brazil, Burkina Faso, Canada, China, Finland,
Germany, India, Japan, Republic of Korea, Mexico,
Singapore, Thailand, USA

7 Organisations:

EUROGI, FIG, GSDI Association, ICA, ISCGM, UNGIWG,
ESRI/JBGIS

Co-chairs:

Paul Cheung (UNSD)
Kyong-Soo Eom (UNSC)
Greg Scott (PCGIAP/Australia)

GEOSCIENCE AUSTRALIA

GGIM motivation

- Improve global coordination in the area of geographic information
- No global forum for member states - comparable to the UN Statistical Commission - where global geographic information management issues can be discussed
- Due to the global nature of policy challenges and the opportunities offered by the fast development of IT capabilities, there was general support for the idea to create a global forum, supported by an expert committee, to discuss Geographical Information Management issues
- Strengthen national capacity, especially in developing nations

GEOSCIENCE AUSTRALIA

GGIM objectives - 1

- Play a leadership role in setting agenda for further development of geographic information
- Promote use of geographical information to address key global challenges (poverty reduction, sustainable development, climate change and disaster management) and raise the professional visibility
- Propose principles, policies, methods and mechanisms for standardisation, interoperability and sharing of geographical data and metadata

GEOSCIENCE AUSTRALIA

GGIM objectives - 2

- Collect good practices among member states regarding legal instruments, management models and technical standards for building spatial data infrastructures
- Provide a vehicle for liaison and coordination among UN agencies, other international agencies, and among the regions
- Provide a platform to develop effective strategies on how to build and strengthen capacity for the management of geographic information, especially in developing countries

GEOSCIENCE AUSTRALIA

Consultative Meeting on GGIM

- In order to function as a global governance mechanism member countries, especially NMOs, would have to play a leading role in the global forum
- The forum would have to be inclusive to include relevant professional and academic institutions, as well as private sector representatives
- Caution was expressed not to duplicate current activities and to build upon the achievements of existing initiatives
- Suggested priority areas for the initial focus of the forum included:
 - improving access to place based data,
 - integration of geographic information and other data sets, and
 - ensuring the interoperability of data sets

GEOSCIENCE AUSTRALIA

GGIM Status

- As concrete next steps, it was agreed to table a resolution at the UNRCC-AP to seek the mandate of ECOSOC for such a global forum
- 18th UNRCC-AP Resolution VII: Global geographic information management - tabled and accepted
- 41st UNSC Decision 10: Global geographic information management - tabled and accepted
- UN prepare a report outlining a global vision for GGIM to be presented to ECOSOC and prepare for a possible global forum
- The 2nd preparatory meeting of the GGIM will be convened 10-11 May 2010 in NY, and will discuss the terms of reference and the modalities of work for the global forum and the Committee of Experts

GEOSCIENCE AUSTRALIA

Thank you...

Greg Scott
Greg.Scott@ga.gov.au

GEOSCIENCE AUSTRALIA