E-gov in Asia-Pacific: implications for cadastre

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Approach taken to issue

- An Asia-Pacific rather than a country-specific view on e-gov & cadastre
- Looks at the issue of e-gov through the eyes of the United Nations (host of PCGIAP)
- Considers demand side needs first (user needs identified by the UN) then looks at possible supply side responses (cadastre & cadastral organisations)
Outline of presentation

- Definition of e-gov, United Nations 'take' & concurrent spatial thinking
- 2008 yearbook for Asia-Pacific and the role of PCGIAP
- 2008 United Nations e-government readiness survey
- Regional e-gov problems and implications for the cadastre and cadastral organisations
Key UN documents

STATISTICAL YEARBOOK
FOR ASIA AND THE PACIFIC

UN E-GOVERNMENT SURVEY 2008
From E-Government to Connected Governance
Definition of e-government

- e-gov refers to the use of information and communication technology to provide and improve government services, transactions and interactions with citizens, businesses, and other arms of government.
UN 'take' on e-government

- Emerging trend towards reforming the public sector because citizens placing new demands on governments
- Citizens demanding efficiency, accountability, public trust, and better service and results
- Governments are introducing innovations in organizational structure, practices, capacities (human capital, ICT and financial resources)
- Use of ICT playing a crucial role
UN 'take' on e-governmen

- ICT plays a crucial role in advancing the goals of the public sector and in contributing towards an enabling environment for social and economic growth

- However, the real benefit of e-government lies not in the use of technology per se, but in its application to processes of transformation

- In summary ICT providing an enabling environment for processes of transformation
Global consideration of spatial technology & e-gov

- At the same time consideration on how spatial technology can enhance e-gov outcomes
- Particularly spatial infrastructures (including land administration and cadastral systems)
- Requirements of e-gov raising questions on effectiveness of spatial infrastructures
- Use of spatial infrastructure in this way is becoming known as spatially enabling government
Asia-Pacific in 2008

- Across the region, fertility is decreasing and life expectancy is increasing...
- ....and many more of these people are living in cities...
- ...but many are also migrating to other countries inside or outside the region
- Although people are living longer, there are still major health concerns
Asia-Pacific in 2008

- More people have access to clean water and safe sanitation
- Many more children are now going to school
- Asia and the Pacific has enjoyed robust economic growth...
  - which has benefited from increasing global integration...
- ...and a more productive workforce
Asia-Pacific in 2008

- Economic growth has helped reduce poverty...
- ...but done less to reduce inequality
- To sustain growth, the region will need to invest in infrastructure, particularly transport...
- ...and in communications technology
- Better transport and communications will increase opportunities for tourism
- But rapid economic development has taken its toll on the environment
Urbanisation

- Population 4.1 billion over 60% world
- Highest & lowest populated countries
- More than 40% live in urban areas
- Urbanisation 2.3% 2nd highest in world
- 1/3 live in slums

Figure 2.1

Level of urbanization, by Asia-Pacific subregion, 1990 and 2008
Natural disasters
UN e-gov readiness survey 2008

- Shows governments areas of strengths and weaknesses in e-gov readiness; outlines benefits and challenges; provides policymakers with examples of good practice
- Countries are at different phases of delivering e-gov services; some migrating beyond e-gov to i-gov, or ‘connected government’, basis for the transformation from a bureaucratic to a people-centred government
UN e-gov readiness survey 2008

- E-gov readiness index is a composite index comprising web measure index, telecommunication infrastructure index and human capital index.

- Countries pass through five stages – emerging, enhanced, interactive, transactional and connected.
UN e-gov readiness survey 2008

- Telecommunication infrastructure index - Internet users /100 persons; PCs /100 persons; main telephones lines /100 persons; cellular telephones /100 persons and broad banding /100 persons

- Human capital index - adult literacy rate and the combined primary, secondary and tertiary gross enrolment ratio
## Survey results

<table>
<thead>
<tr>
<th></th>
<th>Web measure index</th>
<th>Infrastructure index</th>
<th>Human capital index</th>
<th>E-government readiness index</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCGIAP maximum</td>
<td>0.82</td>
<td>0.69</td>
<td>0.99</td>
<td>0.83</td>
</tr>
<tr>
<td>PCGIAP minimum</td>
<td>0.01</td>
<td>0.01</td>
<td>0.33</td>
<td>0.20</td>
</tr>
<tr>
<td>PCGIAP mean</td>
<td>0.30</td>
<td>0.14</td>
<td>0.79</td>
<td>0.43</td>
</tr>
<tr>
<td>World mean</td>
<td></td>
<td></td>
<td></td>
<td>0.45</td>
</tr>
</tbody>
</table>

*Table 2: Variation and mean of indices*

<table>
<thead>
<tr>
<th>Country index</th>
<th>E-government readiness index</th>
</tr>
</thead>
<tbody>
<tr>
<td>above 0.75</td>
<td>8%</td>
</tr>
<tr>
<td>between 0.50 &amp; 0.75</td>
<td>18%</td>
</tr>
<tr>
<td>between 0.25 and 0.50</td>
<td>65%</td>
</tr>
<tr>
<td>below 0.25</td>
<td>10%</td>
</tr>
</tbody>
</table>

*Table 3: Distribution of indices for PCGIAP countries*
Survey results

- Large variation in e-gov readiness of countries
- Groups of countries with similar characteristics
- Enabler of organizational & democratic renewal
- From static websites to integrative portals
- Centralization of ICT management & collaboration to create networked government
- Digital systems from back office to strategic enabling architecture for organizational performance
Survey results

- Leveraging government infrastructure to share information & integrate delivery of services through citizen-centric governance models
- Fostering inter-jurisdictional partnering
- Re-engineering the back office to achieve vertical and horizontal integration and operational and strategic integration
- Collaboration between governments, that is adopting federalism as a key design principle
Survey results

- Developed world e-gov agenda more about improving the business of government via better customer relations
- E-gov agenda in developing countries more on overcoming traditional governance weaknesses - absence of openness, excessive corruption and weak accountability
- Considering e-government as a global [or regional] project
E-gov implications for cadastre & organisations

- Creating digital cadastral databases; making elements visible & assessible through web services; sharing cadastral data
- Geocoding cadastral parcels with unique & authoritative identifiers; and providing geocoding services to agencies for validating and geocoding databases
- Facilitating partnerships between governments and across agencies for integrated web portal development & back-office re-engineering incorporating geocoded data
E-gov implications for cadastre & organisations

- Building capacity across agencies on geocoding and integrated web portals
- Providing leadership by deploying exemplars of e-gov implementation; actively supporting centralisation of important ICT management functions
- Considering inter-country or regional approaches to cadastral reform that supports e-government
Conclusion

- Cadastre is strategic government and societal asset, needs to meet traditional & emerging needs
- Cadastre is part of a countries' spatial information infrastructure
- Infrastructure needs to facilitate spatial enablement and address major issues
- Cadastral organisation is a strategically important organisation for government & society
Conclusion

- Keep regional SDI and regional land administration activities in the same regional structure
- Within the regional group, regard e-gov support as key objective, which will assist UN amongst others