



Permanent Committee on GIS Infrastructure for Asia and the Pacific

Working Group 3

Cadastral

STATUS REPORT

FOR 16th UNRCC Conference and 9th PCGIAP MEETING

Okinawa, JAPAN

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REPORT FOR WORKING GROUP 3: CADASTRE

Working Group 3 (Cadastre) has an objective to explore the relationship between the operation of the cadastre or land administration system in each member country and the development of their spatial data infrastructures at local, state and national levels. In response to this objective, this Working Group has two major tasks. First to undertake a review of cadastral activities in the Asia and Pacific region through the use of questionnaires and the organization of a regional workshop in July, 2003 to discuss the development of cadastral templates in order to compare systems and their role in National SDIs, and secondly to develop a set of guidelines appropriate to the Asian and Pacific region for the design of marine cadastres which will be discussed in a regional workshop in early 2004.

Key activities undertaken since 8th PCGIAP Meeting in Brunei Darussalam:

1. Cadastral Template

Resolution 8 from 8th PCGIAP meeting, Brunei Darussalam,

“Implementation of Working Group 3 Work Plan”

The PCGIAP,

Recognizing the important relationship between the operation of the cadastre and spatial data infrastructures at local, state and national levels and the role of PCGIAP to assist the development of these SDIs,

Further recognizing the need in the Working Group 3 Work Plan to develop a cadastral template in order to better understand the role of cadastres in member countries and particularly their role in developing spatial data infrastructures,

Acknowledging the need to establish a task force of member countries to initially develop a draft cadastral template,

Noting the offer by Australia, Brunei Darussalam, India, Iran, Korea and Malaysia to participate in the task force,

Recommends to

- Develop a draft cadastral template which will include questions on:
 - a. Land policy
 - b. Laws and regulations
 - c. Land tenure
 - d. Land administration and cadastre
 - e. Institutional arrangements
 - f. Spatial data infrastructures
 - g. Technology

- h. Human resources and capacity building, and
- Present the draft cadastral template for discussion to a two day workshop to be held prior to the 16th UNRCC for Asia and the Pacific in Japan in spring or summer of 2003.

The development of a cadastral template is one of the objectives of Working Group 3 of the PCGIAP. This template will be a standardised generic proforma that will enable the discovery of information, including matters concerned with member countries' land policy, laws and regulations, land tenure, land administration and cadastre, institutional arrangements, spatial data infrastructures, technology as well as human resources and capacity building.

To work on the preparation of this Template a team has been formed comprising the Chair of the WG3 (Prof Ian Williamson), the Research Coordinator of the WG3 (Dr Abbas Rajabifard) and one of the members of their SDI and Land Administration Research team from The University of Melbourne (Mr Daniel Steudler, working group secretary FIG-Commission 7 since 1994; current a PhD candidate). This team has undertaken major research and work on the development of the Cadastral Template since July this year. As a result of the work of this team and feedback and suggestions provided by the WG3-Vice Chair (Mr Ahmad Fauzi), a draft version of the Template and a strategy process for feedback and implementation was completed in September 2002 and presented by Dr Rajabifard at the PCGIAP-Executive Board Meeting in Philippines.

The draft Template comprised three main parts. The first part was Explanatory Remarks, which was designed to assist member nations to respond to the questionnaire. The second part was the actual Questionnaire. The third and last part of the Template was the structure of the questionnaire, together with other appendices providing background information for the members.

As a result of the feedback received from PCGIAP-Board members, the draft template has been significantly revised to keep it simple in order to make it easy to understand and to fill out, as well as meeting the objectives of WG3.

As a result of this process, the research team defined four key issues that the template should cover. These key issues were:

- to get an indication of the **order of magnitude** of the basic tasks in a cadastral system. For example how many parcels required to be surveyed and to registered to complete the cadastre;
- to get an indication of the magnitude and problems involved in documenting the **informal occupation of land**;
- to understand the **role of the cadastre in a National SDI**, and to get an appreciation of the completeness, comprehensiveness, and usefulness of spatial cadastral data;
- to get an understanding of the **capacity building** in land administration and SDI which should be established to support the system.

Based on these key issues, the template, is structured into two main parts:

- **Country Report:** structured description of national cadastral systems; and
- **Questionnaire:** a few multiple-choice questions and statistical indicators.

The first part, the country report, is a descriptive report of the national cadastral system. To make it easier to fill out, this part is designed to have mainly textual descriptions. For easier comparisons later, it is structured into five main topics, each with sub-topics. The second part of the template identifies the basic principles and main statistics of the cadastre. The statistics are kept simple and focus mainly on the population and the number of parcels and professionals working in the system.

A copy of the Cadstral Template can be found in Attachment 1 (This is the version which has been sent to all the Tasked Force Members as well as the Executive Board members for completion). It can also be found and downloaded from a dedicated website which has been designed for publicising the results of the cadastral template. The country reports on cadastral systems also will be uploaded to this website.

The work of PCGIAP WG3 (Cadastre) on the cadastral Template and the plan for its analysis is being done in collaboration with Commission 7 "Cadastre and Land Management" of the International Federation of Surveyors (FIG) which has extensive experience in comparative cadastral studies.

Recommendation 1:

In order to obtain more benefit from the comparative analysis of the data provided by the PCGIAP Cadastral Template, the data will be jointly analysed with the data from FIG member nations thereby allowing PCGIAP countries to be compared with countries in other regions of the world.

Recommendation 2:

As agreed in the WG3 (Cadastre) workplan the outcomes of the activities and analyses will be published widely in the following manner:

- Reports to PCGIAP;
- Journal publications; and
- The PCGIAP website and the dedicated website for the joint PCGIAP/FIG/Melbourne University cadastral template project.

2. WG3 Workshop on Cadastral Systems in Asia and Pacific Region

As part of WG3 Workplan and the strategy process to develop the cadastral template, WG3 had scheduled a two-day workshop (12-13 July 2003) on cadastral systems in Asia and Pacific region (based on the Cadastral Template) which was conducted prior to the 16th UNRCC-AP conference and 9th PCGIAP meeting in Okinawa, Japan. The PCGIAP has acknowledged the importance of the development of this Cadastral Template and has approved the Workshop through Resolution number 8 during the 8th PCGIAP meeting in Brunei Darussalam, April 2002.

As part of the arrangement and preparation for this workshop, WG3 had regularly communicated with the PCGIAP-Secretariat and members of the Task Force countries on this matter. As a result of the discussion and communication between WG3 and the Secretariat, the program for the 2-day workshop was prepared and submitted to the Secretariat in October 2002.

In order to encourage member nations to participate in the workshop and respond to the template, WG3 has sent an invitation letter signed by Prof Williamson, the Chair of the WG3, and follow-up emails in April-May 2003, to all PCGIAP-member countries for official invitation to the workshop and completion of a country report on the status of their cadastral system. As the result of the invitation and promotion on the workshop, about 35 people from 18 countries had responded and registered to participate in this workshop by 2nd June 2003.

This workshop was planned to be open to all PCGIAP members as well other interested people who can attend as observers. The workshop was designed as a combination of an open seminar and discussion meeting.

3. Status of WG3 Invitation Letter to Member Nations

Resolution 7, from 8th PCGIAP meeting, Brunei Darussala,

“Request for persons experienced in cadastral matters to be involved in Working Group 3”

The PCGIAP,

Recognizing the Terms of Reference of Working Group 3 (Cadastre) approved by the 15th UNRCC for Asia and the Pacific in April 2000, the 2002-2004 Work Plan for Working Group 3 developed at the workshop held in Penang in September 2001 and the approval of the Work Plan at the PCGIAP Executive meeting in China in November 2001,

Further recognizing the requirement for Working Group 3 to have input from member countries of people with experience in cadastral systems and particularly cadastral mapping in order to progress its Work Plan,

Noting the need for requests for involvement of specialist expertise to be transmitted by the PCGIAP to member countries,

Recommends to send a letter of invitation to each member country to request the identification of an appropriate person from a land administration or cadastral mapping agency, who is experienced in cadastral matters and particularly cadastral mapping, to be involved in the activities of Working Group 3.

Based on above Recommendation, WG3 prepared an invitation letter which outlined the objectives and Workplan of the Working Group as well as trying to encourage the member nations to participate in the activities of WG3. This letter was signed and sent by Mr Hoshino Yoshihisa (the Secretariat of PCGIAP) to all member nations in May 2002. As a result of this letter one response

(Macau) was received. This is in addition to the six members of the WG3-Taskforce countries (Australia, Brunei Darussalam, India, Iran, Malaysia, and South Korea).

Due to the limited response, the WG3 has communicated with the Secretariat and has suggested and requested that the Secretariat send a follow-up email to all member nations (or a letter to those members without access to email). The aim of this follow-up was to remind member nations about the invitation letter and ask them to reply to the email within a week or so by introducing a contact person for the activities of WG3. Further to this request, WG3 has suggested that the follow-up email also be sent to many known cadastral/land administration contacts in the region. This is to advise that a formal invitation has been sent and ask if they could make some enquiries as to who has been nominated to represent their country in WG3 on cadastral matters. There was then the need for that person to liaise with the PCGIAP representative (usually in the national mapping organisation) for their country. This email was prepared by the Secretariat and sent out on behalf of WG3 to all members on the 9th of the September 2002. As a result of this action, two more members (China and Hong Kong) have also responded and provided contact details. In summary nine members including the Taskforce members responded to cooperate in WG3 activities.

Following the development of the new version of the Cadastral Template and the invitation for the cadastral template workshop, 18 countries (including Taskforce countries) had responded and registered to participate in workshop by 2nd June 2003. Therefore, it is the aim of WG3 to discuss with those new countries (who will attend this WG3-workshop) about their involvement in the activities of WG3.

Further to the PCGIAP member nations, the Chair of WG3 has also communicated with Chair of the FIG-Commission 7 (Mr Paul van der Molen) and his colleagues at this commission to develop possible cooperation with FIG-Commission 7 and joint sponsorship for the activities such as the PCGIAP Cadastral Template workshop and to seek support for the other WG3 activities. As a result of this communication, the Chair of FIG-Commission 7 has agreed with the suggestion and therefore responded that Commission 7 (which is also dedicated to cadastres and land management) is supportive of these kinds of initiatives, and therefore can be mentioned as a supporter to the PCGIAP-WG3.

4. Marine Cadastre- The second Component of the WG3-Workplan

The second component of the WG3 three year Workplan is to support research to improve understanding of Marine Cadastres in this region. The work and activity on this component of the WG3 Workplan will start after this conference. As part of this project, WG3 will host a workshop (early 2004) in Asia and the Pacific region (which is an item for the discussion with member nation at this meeting) to develop both Guidelines for the establishment and maintenance of marine cadastres and a Future Action Plan for the development of marine cadastres. The project also aims to review best practice, to establish networks and to evaluate the potential for ICT expertise in establishing marine cadastres. In order to prepare more information and do research on Marine

Cadastre issues, the WG3 Chair and Research Coordinator are involved in the activities of the Marine Cadastre Research Group at the Geomatics Department, The University of Melbourne (<http://www.sli.unimelb.edu.au/maritime/>).

As part of the activities of this research group, a national workshop on marine cadastre was conducted in University of Melbourne in which Dr Rajabifard has presented a report on the activities and workplan of PCGIAP-WG3. Also as part of the activities of this research group, a new research grant application has been designed and submitted to the Australian Research Council asking for support for continuation of current research.

In addition, the WG3-Research Coordinator, Dr Abbas Rajabifard has been arranged to participate to the International Seminar and meeting of the FIG commission 4 on Marine cadastre in September in New Brunswick in Canada. Dr Rajabifard will present a report, on behalf of the WG3, to this seminar and meeting on the plan activities of Marine cadastre by this WG.

The research being undertaken by the Marine Cadastre Research Group (which comprises five equivalent full-time staff and two Australian State Governments and the Federal Government) is directly related to the future work plan of WG3. In particular the Marine Cadastre Research Group has prepared a questionnaire on marine cadastre which will form the basis of the PCGIAP marine cadastre questionnaire.

5. Workplan Summaries (2003-2004)

No	Steps	Date	Status
1	Development of a rough Template (based on the cadastral toolbox concept)	Aug.-Sept. 2002	Done
2	Presentation of draft Cadastral Template at Meetings (For comments and suggestions) to: <ul style="list-style-type: none"> - PCGIAP-EB members (including WG3-Task Force Countries), and - FIG-Commission 7 members during their respective meetings in the Philippines and South Africa	end Oct. 2002 early Nov. 2002	Done
3	Collate the feedback from WG3-Task Force Countries.	Nov. 2002	Done
4	Refine the Template based on suggestions.	Dec. 2002	Done
5	Send the Template to WG3-Task Force Countries for preparation of Report on Cadastral systems	April-May 2003	Done
6	Collate the responses and prepare a report on that and other materials for the Workshop	May-June 2003	Done
7	Cadastral Template Workshop: <ul style="list-style-type: none"> - present the report at the Workshop in Japan; - Presentation of Country Report on Cadastral System by participants - Discussion on Cadastral Template - Development of future Plan 	Okinawa-Japan July 2003	
8	Distribution of Template to other PCGIAP members and FIG-Commission 7 members	August 2003	
9	Start of activities on the second component of WG3-workplan (Marine Cadastre)	August-Dec. 2003	
10	Annual Meeting of FIG-Commission 7 in Poland and presentation of the cadastral template	Mid Sept. 2003	
11	Follow-up on responses to the Template and collate the completed answers	September 2003	
12	Analysis of results (prepare report, draw the graphs, etc.)	Oct.-Nov. 2003	
13	Report on outcomes of analysis (conclusions, recommendations, future plan, etc.)	Dec. 2003-January 2004	
14	Design and preparation of Marine cadastre workshop	January 2004-	