



United Nations

Nineteenth United Nations Regional Cartographic Conference for Asia and the Pacific

Bangkok, 29 October-1 November 2012

Report of the Conference

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Department of Economic and Social Affairs

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Note

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Chapter I

Organization of the Conference

A. Introduction

1. In accordance with Economic and Social Council decision 2011/276 of 29 July 2011, the Nineteenth United Nations Regional Cartographic Conference for Asia and the Pacific was held at the United Nations Conference Centre of the Economic and Social Commission for Asia and the Pacific in Bangkok from 29 October to 1 November 2012.

B. Opening of the Conference

2. Mr. Greg Scott (Australia), temporary President, opened the Conference and made welcoming remarks.

3. Opening statements were made by Mr. Paul Cheung, Director of the United Nations Statistics Division, on behalf of the Secretary-General, and Group Captain Anudith Nakornthap, Minister of Information and Communication Technology of Thailand.

C. Attendance

4. The Conference was attended by 125 representatives of 26 countries and 10 specialized agencies, international scientific organizations and other entities. The list of participants is contained in document E/CONF.102/INF/2 and is available at <http://unstats.un.org/unsd/geoinfo/RCC/unrccap19.html>.

D. Election of officers

5. At its 1st plenary meeting, on 29 October 2012, the Conference elected the following officers by acclamation:

President:

Mr. Li Pengde (China)

Vice-Presidents:

Mr. Yoshikazu Fukushima (Japan)

Mr. Abdul Kadir Taib (Malaysia)

Rapporteur:

Mr. Cho Woo-Sug (Republic of Korea)

E. Organizational matters

1. Adoption of the rules of procedure

6. At its 1st plenary meeting, on 29 October 2012, the Conference adopted its provisional rules of procedure, as contained in document E/CONF.102/2.

2. Adoption of the agenda and organization of work of the Conference

7. At its 1st plenary meeting, on 29 October 2012, the Conference adopted its provisional agenda as contained in document E/CONF.102/1. The agenda was as follows:

1. Opening of the Conference.
2. Election of the President and other officers of the Conference.
3. Adoption of the agenda and other organizational matters:
 - (a) Adoption of the agenda and organization of work of the Conference;
 - (b) Adoption of the rules of procedure;
 - (c) Establishment of technical committees and election of the Chair of each committee;
 - (d) Credentials of representatives to the Conference.
4. Report of the Permanent Committee on Geographical Information System Infrastructure for Asia and the Pacific.
5. Report on the implementation of resolutions adopted at the Eighteenth United Nations Regional Cartographic Conference for Asia and the Pacific.
6. Conference papers:
 - (a) Country reports;
 - (b) Invited papers on achievements and developments in geographical information management in addressing national, regional and global issues.
7. Reports of the technical committees of the Conference.
8. Provisional agenda for the Twentieth United Nations Regional Cartographic Conference for Asia and the Pacific.
9. Adoption of the report of the Nineteenth United Nations Regional Cartographic Conference for Asia and the Pacific.

8. Also the same meeting, the Conference approved its draft work programme as contained in an informal paper (E/CONF.102/L.1).

3. Establishment of technical committees and election of the Chair of each committee

9. At its 1st plenary meeting, on 29 October 2012, the Conference established the following three technical committees and elected their chairs as follows:

Committee I: Geodetic reference framework for sustainable development

Chair: Mr. John Dawson (Australia)

Committee II: Data-sharing and integration for disaster management

Chair: Mr. Hadi Vaezi (Islamic Republic of Iran)

Committee III: Place-based information management for economic growth

Chair: Ms. Jiang Jie (China)

4. Credentials

10. At the 6th plenary meeting, on 1 November 2012, the President of the Conference reported that, in accordance with rule 3 of the rules of procedure of the Conference, the credentials of representatives had been reviewed and found to be in order.

5. Documentation

11. A list of the documents submitted to the Conference is contained in annex V and is available from <http://unstats.un.org/unsd/geoinfo/RCC/unrccap19.html>.

Chapter II

Plenary session

12. At its 1st plenary meeting, on 29 October 2012, the Conference began its consideration of agenda item 4, “Report of the Permanent Committee on Geographical Information System Infrastructure for Asia and the Pacific”. Li Pengde, President of the Permanent Committee on Geographical Information System Infrastructure for Asia and the Pacific (PCGIAP), presented a summary of the activities of PCGIAP (E/CONF.102/3), highlighting the main meetings and projects of PCGIAP, such as a common geodetic framework, spatial data infrastructure status survey, capacity development in disaster management and so forth. Introducing the contributions that PCGIAP has made towards the United Nations Initiative on Global Geospatial Information Management (UN-GGIM) and the subsequent establishment of the Committee of Experts on Global Geospatial Information Management, he stressed the close cooperation and being harmonized with UN-GGIM in its future perspective.

13. At the same meeting, Shigeru Matsuzaka, Chair of Working Group 1 on Geodetic Technologies and Applications, reported on its activities during the past three years in response to the resolutions adopted at the Eighteenth United Nations Regional Cartographic Conference for Asia and the Pacific in 2009. As a main theme and activity, the establishment of the Asia-Pacific Regional Reference Frame (APREF) project and its achievements were introduced, along with the ongoing Asia-Pacific Regional Geodetic Project (APRGP) campaign. He reported the cooperation of the Working Group with UN-GGIM, which included key presentations and participation at the Hangzhou Forum, the second session of the Committee of Experts and the side event on the global geodetic reference system.

14. Also at the same meeting, Hadi Vaezi, Chair of Working Group 2 on Geospatial Data Management and Services, presented their main activities. In response to the resolutions adopted at the Eighteenth United Nations Regional Cartographic Conference for Asia and the Pacific in 2009, two questionnaires were developed to determine the present status of spatial data infrastructure (SDI) development in the region. These were circulated to member countries in 2011 and 2012. The preliminary analysis and results were reported at related meetings.

15. Also at the 1st plenary meeting, Simon Costello, Chair of Working Group 3 on Spatially Enabled Government and Society, introduced and summarized the completion of a number of regional spatial enablement case studies. He also reported on two significant forums on spatially enabled Government and society and land administration, held in Melbourne, Australia, in 2011 and Kuala Lumpur in 2012.

16. At its 2nd plenary meeting, on 29 October 2012, the Conference considered agenda item 5, “Report on the implementation of resolutions adopted at the Eighteenth United Nations Regional Cartographic Conference for Asia and the Pacific”. JinHwan Yoon, representing Im JooBin, secretariat of PCGIAP, presented a report, jointly prepared by the United Nations Statistics Division and PCGIAP, on the actions taken during the past three years in response to the resolutions adopted at the Eighteenth United Nations Regional Cartographic Conference for Asia and the Pacific. He reported that most of the relevant actions had been achieved by the PCGIAP working groups and member countries, and expressed gratitude to all who

had contributed their efforts and dedication to PCGIAP. He also emphasized the importance of the close cooperation among member countries and relevant international organizations to cope with and overcome the many global geospatial challenges.

17. At the same meeting, the Conference began its consideration of agenda item 6, “Conference papers”. The session Chair, Soh Kheng Peng, drew the attention of the Conference to documents submitted under agenda item 6 (a), “Country reports” (E/CONF.102/CRP.1-8). He informed the Conference that, following the practice at previous conferences, the country reports and other papers identified as conference room papers would not be presented in the Conference.

18. Also at the same meeting, the Conference began its consideration of agenda item 6 (b), “Invited papers on achievements and developments in geospatial information management in addressing national, regional and global issues”. Im JooBin, Co-Chair of the second session of the Committee of Experts on Global Geospatial Information Management, presented a keynote paper entitled “Global perspectives on UN-GGIM vision” (E/CONF.102/IP.1). He explained the need for UN-GGIM in order to handle the current global challenges, and discussed the past progress, such as the two sessions of the Committee of Experts, the outcome document of the United Nations Conference on Sustainable Development, the relevance and importance of the inventory of issues as a road map, and the activities of the visioning group, whose objective was to determine the future trends in the area of geospatial information. He introduced the current activities regarding the development of a global geospatial information platform, including making a road map and action plan, developing a statement of ethical principles for geospatial information, and suggested a policy proposal for capacity-building and the global interoperability of geospatial information.

19. Also at the 2nd plenary meeting, Li Pengde, President of PCGIAP, presented a keynote paper entitled “Asia Pacific countries cooperate closely to strengthen geospatial information development” (E/CONF.102/IP.2). He explained that the Asia-Pacific region is the most diverse and vulnerable, and is composed of countries at various stages of geospatial information development. Thus, there is a stronger need to strengthen national capacities in order to minimize any unbalanced progress in the region. He emphasized international cooperation with the aim of enhancing the overall capacity of national geospatial information agencies in a balanced way.

20. At the same meeting, Abdul Kadir Taib, Director General of the Department of Survey and Mapping, Malaysia (JUPEM), presented a keynote paper entitled “Achievements and developments in geospatial information management in addressing national issues” (E/CONF.102/IP.3). Specific examples were provided of national Government initiatives that will benefit from geospatial information, including: Vision 2020; the Government Transformation Programme; National Transformation; and Digital Malaysia. These and other challenges, such as urban problems and climate change, provided opportunities for use in authoritative geospatial information to achieve the required outcomes in a policy environment.

21. At its 3rd plenary meeting, on 30 October 2012, the Conference continued its consideration of agenda item 6 (b). Soh Kheng Peng, Chief Surveyor, Singapore Land Authority, presented a paper entitled “Spatial data infrastructure activities in Singapore” (E/CONF.102/IP.4). He introduced the Geospatial Collaborative Environment of Singapore, in which the public sector, the private sector and the

community collaborate to make available and use geospatial information for a wide range of shared applications and services. He also introduced Cadastre Vision 2020, which is a plan for advanced cadastre in Singapore. He explained that the current cadastral survey system is on the way to the “Smart Cadastre”, with the completion of three-dimensional (3D) titling. In the near future, 3D topographical mapping will be realized to better support policy, decision-making and governance of geospatial data.

22. At the same meeting, Ahmad Fauzi bin Nordin, Deputy Director General of the Department of Survey and Mapping Malaysia, presented a paper entitled “Geospatial activities, spatial data infrastructure and the economy — the Malaysian context” (E/CONF.102/IP.5). He indicated that the Government of Malaysia had drawn up economic policies to steer the economic growth of the country, and that the need of geospatial information was increasing as an enabler for the implementation of the economic policies and activities. In that regard, the role of the Department, as the national surveying and mapping organization in Malaysia, was important as the provider of the fundamental geospatial datasets. He explained future developments and directions of Malaysia, and how they will improve cadastre, spatial data-sharing, research and development and more holistic data models, which will be able to generate other forms of economic activities, thereby further contributing to their national economic growth.

23. Also at the same meeting, Munkhtsetseg Dalkhaa, Senior Specialist, Geodesy and Cartography Division, Administration of Land Affairs, Geodesy and Cartography, Mongolia, presented a paper entitled “Place-based information management for economic growth” (E/CONF.102/IP.6), having a focus on the usage and management of spatial information and the progress of the National Spatial Data Infrastructure (NSDI). She explained that as the spatial information in Mongolia is managed ineffectively by several governmental agencies, the Government of Mongolia recently decided to conduct the “NSDI framework data collection” project, and adopt a law on NSDI to avoid duplication of work and finance. As a result, it is expected that the spatial information will be managed and distributed by an authorized portal site with qualified data being produced through data standardization.

24. Also at the 3rd plenary meeting, Teo CheeHai, President of the International Federation of Surveyors, presented a paper entitled “Spatial enablement towards managing all information spatially” (E/CONF.102/IP.8), introducing the structure of the Federation and its workplan. In order to efficiently cope with rising global challenges, he stressed the importance of spatially enabling Governments and societies, and showed the related activities in the Federation, for example, its Publication No. 58 on spatially enabled society.

25. At the same meeting, Krishna Raj, Joint Secretary, Ministry of Land Reform and Management, Nepal, presented a paper entitled “Challenges and potential of place-based information management in Nepal” (E/CONF.102/IP.9). He briefly introduced the context of Nepal and explained place-based information created by the public and private sector for public purposes in Nepal. As an early stage of place-based information management, he emphasized the Government’s new interest in e-government development, which is leading the change in the role of Government.

26. Also at the same meeting, Chandra Pal, Deputy Surveyor-General of India, presented a paper entitled “Improving spatial data management for development planning in India” (E/CONF.102/IP.7). He introduced the twelfth five-year plan (2007-2012), the aim of which is to improve the strategy of data management and collecting spatial data from a variety of sources. He also explained the Natural Resources Data Management System, one of the research and development programmes in the geoinformation area, and NSDI, which is a governance framework for management of geospatial data and national policies on data-sharing and accessibility.

27. At its 4th plenary meeting, on 30 October 2012, the Conference continued its consideration of agenda item 6 (b). Simon Costello, Group Leader, National Geographic Information Group, Geoscience Australia, presented a paper entitled “The role of national geospatial authorities in disaster management — Australian perspectives 2010-2013” (E/CONF.102/IP.10). He demonstrated the increasing role of national geospatial information authorities in delivering authoritative and consistent data and management in emergency situations. As a case study, he explained how the Government responded after devastating floods in Australia in 2010 and 2011.

28. At the same meeting, John Fabic, Director, Information Management Department, National Mapping and Resource Information Authority, the Philippines, presented a paper entitled “Data integration and sharing for disaster management” (E/CONF.102/IP.11). He reported that numerous natural disasters had recently occurred in the Philippines, and national plans and policies for disaster risk reduction and management had been introduced. As a provider of base maps and fundamental geospatial information, he explained the involvement and role of the Authority in the READY project, a project for hazard mapping and assessment for effective community-based disaster risk management. In addition, he presented the development of the Philippines geoportal as a common geospatial data framework.

29. Also at the same meeting, Kazushige Kawase, Director of International Affairs Division, Geospatial Information Authority of Japan, presented a paper entitled “How the National Geospatial Information Authority of Japan responded to the Great East Japan Earthquake” (E/CONF.102/IP.12). He reported on the major damage brought on by the Great East Japan Earthquake in 2011, and the response activities of GSI that established a support team and provided geospatial information. He stressed that GSI, on the basis of its achievements and challenges, will make its best efforts to provide geospatial information products and play a growing role as the national geospatial information authority in changing the social context.

30. Also at the 4th plenary meeting, Peyman Baktash, General Manager, Geographic Information System and spatial data infrastructure, Department of National Cartographic Centre of the Islamic Republic of Iran, presented a paper entitled “Islamic Republic of Iran activities on spatial data infrastructure and data sharing for disaster management” (E/CONF.102/IP.13). Using the recent earthquake on 11 August 2012 as a case study, and the GPS-based analysis of the crustal deformation in north-west Islamic Republic of Iran, he presented the need for a proper spatial infrastructure for sustainable development and the role and activities of the National Cartographic Centre in disaster management. Following his presentation, Ali Soltanpour, Deputy General Manager, Land Surveying Department

of the National Cartographic Centre, continued with the presentation of the crustal deformation in the area of the Islamic Republic of Iran. He illustrated major earthquakes and geodetic analysis results.

31. At the same meeting, Rob Deakin, Spatial Data Infrastructure Technical Leader, New Zealand Geospatial Office, presented the New Zealand country report (E/CONF.102/IP.14). He reported the significant efforts of the New Zealand Geospatial Office in the establishment of a national spatial data infrastructure after the Canterbury earthquakes in 2010 and 2011. In response to the earthquake in February 2011, which caused 185 fatalities and \$20 billion in damage and was recorded as the second largest natural disaster in New Zealand, the Office set up a short-term and long-term strategy based on GIS information.

32. Also at the same meeting, Ram S. Tiwaree, Economic Affairs Officer, Information and Communications Technology and Disaster Risk Reduction Division, Economic and Social Commission for Asia and the Pacific (ESCAP), presented a paper entitled “Geospatial information system for disaster risk management in Asia and the Pacific” (E/CONF.102/IP.15). He presented disaster losses and impacts in the Asia and Pacific region, and stressed that the combined effects were more serious in low-capacity countries. To support the capacity development of high-risk countries, he explained the ESCAP initiative entitled “Improving disaster risk preparedness in the ESCAP region”, which aimed to address the issue of non-interoperability of geo-referenced/geospatial information and strengthen the capacity of Governments in the Asia-Pacific region.

33. At its 5th plenary meeting, on 31 October 2012, the Conference continued its consideration of agenda item 6 (b). Jiang Jie, Director, National Geomatics Centre of China, presented a paper entitled “Modernization of national geodetic datum in China” (E/CONF.102/IP.16). She reported on the traditional geodetic datum in China and the new programme to modernize the current national geodetic datum through the Global Navigating Satellite System (GNSS) and Continuously Operating Reference Station network, and the national gravity fundamental network. This will be achieved by the data centre for geodetic datum in China in the next four years (2012-2016). Lastly she introduced the Beidou global navigation satellite system.

34. At the same meeting, Kwon Jay-Hyoun, Senior Adviser, National Geographic Information Institute, Republic of Korea, presented a paper entitled “Republic of Korea geodetic framework for sustainable development” (E/CONF.102/IP.17). He presented the history and the current status of the geodetic network in the Republic of Korea. Constructing very long baseline interferometry (VLBI) stations in 2012, the hierarchy of national control points was established based on high accuracy. One of the dominant changes he discussed was the unified control point, which contains the geodetic coordinates, orthometric height and the gravity value all together. At the conclusion, he suggested the adoption of the world geodetic system and the unification of the height system to efficiently support many global scientific problems.

35. Also at the same meeting, Samuela Naicegucegu, Assist Director of Lands — Mapping and Land Information, Ministry of Lands and Mineral Resources, Fiji, presented a paper entitled “Geospatial information in Fiji” (E/CONF.102/IP.18), highlighting the Fiji Land Information System as the land information initiative to unify land information and provide common and easy access to user groups. He also

explained the Fiji islands geodetic datum. Finally, he reported that the Government had made efforts to overcome challenges such as data quality and capacity-building, and noted that legislation was most necessary to enable that this be sustained.

36. Also at the 5th plenary meeting, John Dawson, International Association of Geodesy, presented a paper entitled “Geodesy for sustainable development” (E/CONF.102/IP.19). He discussed the Global Geodetic Observing System (GGOS), as one of the main activities on geodesy with the objective of integrating the services for all the major geodetic satellite techniques, such as GNSS, satellite laser ranging, VLBI, Doppler Orbitography and Radio Positioning Integrated by Satellite, and so forth. Explaining the International Terrestrial Reference Frame, the only authoritative global geodetic reference frame, he emphasized the importance of data-sharing for sustainability and improvement of the global network of geodetic infrastructure and supporting GGOS Services.

37. At the same meeting, the Conference held a panel discussion on the theme “UN-GGIM vision for Asia and the Pacific Region”. The panellists included Hiroshi Murakami of Japan, Sanjay Kumar of Geospatial Media and Communications, Samuela Naicegecegu of Fiji and Teo CheeHai of the International Federation of Surveyors. Li Pengde, President of the Conference and PCGIAP, chaired and opened the panel discussion. He stressed the importance of the UN-GGIM mechanism to coordinate global geospatial information activities among Member States and international organizations, and the necessity for PCGIAP to enhance its role as an established regional mechanism in close cooperation and coordination with UN-GGIM, among others. The four panellists reinforced that statement and provided national, international and industry perspectives on the importance of this coordination between the Asia-Pacific region and global initiatives on geospatial information management. The panel also, in considering the role of national geospatial information authorities, emphasized the importance of the role of provider and custodian of authoritative geospatial information; setting standards and frameworks; data integration and delivery; and advancing national geospatial policy settings.

38. In the afternoon of 31 October 2012, the three technical committees, established at the 1st plenary meeting, met in parallel sessions in order to discuss various relevant topics and work on the texts of draft resolutions to be submitted to the Conference plenary for consideration and adoption.

Chapter III

Conclusion of the Conference

39. At its 6th plenary meeting, on 1 November 2012, under agenda item 7, the Conference had reports of the technical committees. The Rapporteurs of Committee I, Shigeru Matsuzaka (Japan), Committee II, Robert Deakin (New Zealand) and Committee III, Simon Costello (Australia), reported on the work undertaken by their respective Committees (see annexes I, II and III).

40. At the same meeting, under agenda item 8, the Conference adopted the provisional agenda for the Twentieth United Nations Regional Cartographic Conference for Asia and the Pacific, which was circulated in an informal paper (see annex IV).

41. Also at the same meeting, the Conference discussed and adopted nine draft resolutions: six resolutions recommended by the technical committees; one resolution proposed by the Permanent Committee on Geographic Information System Infrastructure for Asia and the Pacific; one resolution from the floor; and a resolution on the holding of the Twentieth United Nations Regional Cartographic Conference for Asia and the Pacific (see chap. IV).

42. Also at the 6th plenary meeting, under agenda item 9 “Adoption of the report of the Nineteenth United Nations Regional Cartographic Conference for Asia and the Pacific”, the Rapporteur introduced the draft report of the Conference as contained in an informal paper. The Conference adopted the draft report and authorized the Rapporteur to finalize the report, in consultation with the Secretariat, with a view to submitting it to the Economic and Social Council for appropriate action.

43. At the same meeting, the President of the Conference made a statement and declared the Nineteenth United Nations Regional Cartographic Conference for Asia and the Pacific closed.

Chapter IV

Resolutions adopted by the Conference

A. List of resolutions

1. Geodetic framework
2. Data-sharing and integration for disaster management
3. Acquisition and maintenance of place-based information
4. Smart services for the delivery of geospatial information
5. Capability to deliver and use geospatial information
6. Usefulness and benefits of geospatial information
7. Shared statement of ethical principles
8. Coordination between regional and global initiatives on geospatial information management
9. Twentieth United Nations Regional Cartographic Conference for Asia and the Pacific

B. Texts of resolutions

1. Geodetic framework

The Conference,

Recognizing that geodetic infrastructure, products and services underpin satellite positioning technology, provide the framework for all geospatial activity and is a key enabler of spatial data interoperability, disaster mitigation and sustainable development,

Also recognizing that this is an important issue for the Committee of Experts on Global Geospatial Information Management to consider in consultation with Member States,

Further recognizing the need for the sustainability and improvement of the global network of geodetic infrastructure and International Association of Geodesy/Global Geodetic Observing System services and products, including the International Terrestrial Reference Frame,

Also recognizing the need to assist Member States in developing mandates and support for the provision of geodetic data, products and services,

Further recognizing the problems associated with the lack of coordination between Member States and the need to develop institutional arrangements and coordination frameworks, including those between regions,

Noting the progress made by the Permanent Committee on Geographical Information System (GIS) Infrastructure for Asia and the Pacific and its Working Group on Geodetic Technologies and Applications in improving arrangements for data-sharing and international cooperation,

Also noting the expertise of national geospatial information authorities and the International Association of Geodesy and the potential benefits of improving the communication between Governments and the Association,

Considering the potential security and commercial sensitivities of data-sharing,

Realizing the need to improve the sustainability and capability of the Global Geodetic Observing System, and the need to encourage and support the adoption of the International Terrestrial Reference Frame as the foundation reference frame,

Further realizing the challenges of building technical capacity in developing countries,

Recommends that Member States:

(a) Urge the Committee of Experts on Global Geospatial Information Management to consult with Member States to adopt and sustain a global geodetic reference frame and provide a road map for its implementation;

(b) Participate in and make commitments to the Global Geodetic Observing System to ensure its long-term sustainability;

(c) Support the adoption of the International Terrestrial Reference Frame by participating in regional geodetic programmes such as the Asia-Pacific Regional Reference Frame;

(d) Work towards the connecting and sharing of data on national height datums;

(e) Share foundation observation datasets, including Global Navigation Satellite System, geodetic levelling, terrestrial gravity and tide gauge data in open formats;

(f) Support geodetic experts from Member States to attend appropriate regional forums, such as the meetings of the Working Group on Geodetic Technologies and Applications.

2. Data-sharing and integration for disaster management

Recognizing that the Asia-Pacific region is prone to many natural hazards and devastating disasters, and that geospatial information plays a very important role in making timely information available to support and respond to emergency situations,

Recalling that in the outcome document of the United Nations Conference on Sustainable Development entitled “The future we want”,¹ the Conference urged Governments and organizations to commit to disaster risk reduction in order to enhance the resilience of cities and communities to disasters, according to their own circumstances and capacities,

Also recalling that in paragraph 187 of the outcome document of the United Nations Conference on Sustainable Development¹ the Conference specifically recognized the “importance of comprehensive hazard and risk assessments, and knowledge- and information-sharing, including reliable geospatial information”,

¹ General Assembly resolution 66/288, annex.

Noting that one of the issues identified by the inventory of issues before the Committee of Experts on Global Geospatial Information Management included the sharing of geospatial information between Government agencies in an official and sustainable manner,

Mindful of the existing national, regional and global projects and activities relevant to data-sharing for disaster management,

Mindful also that implementing any solution to improve data- and information-sharing for disaster management needs to be based on an understanding of different user requirements, and recognition of the variability of spatial data infrastructures and their content between Member States,

Recommends that the Permanent Committee on GIS Infrastructure for Asia and the Pacific undertake:

(a) Initial research on existing national and international geo-portals for the sharing of data and information related to disaster management in order to identify the different types of user requirements associated with different hazards types, different phases of the disaster management activity (e.g., risk assessment; preparedness planning; and rescue and recovery), and how this reflects on data requirements;

(b) A phased approach to developing a standards-based subregional pilot(s) to support data-sharing for disaster management to demonstrate the federation of national data, metadata and web services to a regional level;

(c) Initial design and implementation of a regional geo-portal for disaster management with an objective to have in place a subregional portal as a minimum outcome in the next three years.

3. Acquisition and maintenance of place-based information

The Conference,

Noting the increasing importance of place-based information for many aspects of economic growth and societal development,

Also noting the increasing role of interoperable distributed databases created and maintained by different nations and regions to support web-based processing and query,

Recognizing the necessity of up-to-date and properly integrated geospatial information for time-critical applications, such as e-government and emergency management and disaster management,

Also recognizing the benefits of sharing and common use of authoritative geospatial information,

Further recognizing the importance of enhancing national efforts, including investments, in the acquisition and maintenance of geospatial information and its dissemination,

Recommends that Member States improve the acquisition and maintenance of geospatial information by:

(a) Promoting the use of various sensors, imagery and volunteered geographic information for more rapid acquisition and update of authoritative geospatial information;

(b) Piloting and evaluating the usage of fundamental, multiple-use geospatial information for local, national and regional applications.

4. Smart services for the delivery of geospatial information

The Conference,

Noting that the increased usage of geospatial information over the web has continuously changed the way Governments function and transact information and services,

Also noting the trend of using the web/cloud to provide smart services for managing, processing and service platforms for geospatial information,

Recognizing the potential for web/cloud services for both the timely processing, delivery and application of static and dynamic geospatial information,

Also recognizing that the international standards organizations, such as the International Organization for Standardization and the Open Geospatial Consortium are developing standards for the delivery and sharing of geospatial information,

Recommends that national geospatial information authorities utilize and share knowledge on web/cloud-based platforms and other smart services for dynamic management, processing, visualization, analysis and delivery of geospatial information.

5. Capability to deliver and use geospatial information

The Conference,

Noting the progress made in the development of fundamental geospatial information in the Asia and Pacific region,

Also noting the variability in the maturity of geospatial information usage within the Asia and Pacific region,

Further noting that national geospatial information authorities and professionals need to continuously update and share their knowledge on geospatial information,

Recognizing the increased demand for geospatial information in supporting government functions and community well-being,

Recommends that Member State national geospatial information authorities and professionals extend their capabilities to deliver and use geospatial information by developing joint action programmes for education, training and capability development on the acquisition, management, delivery and application of geospatial information.

6. Usefulness and benefits of geospatial information

The Conference,

Recognizing the enormous benefit of reliable and authoritative geospatial information and maps in decision-making for the sustainable use of natural resources, economic development, and for community well-being,

Noting the need to promote geospatial information education and training for national Governments, decision makers, the geospatial industry and users,

Also noting the preparations made by the International Cartographic Association ad hoc committee for the International Map Year, and the support by the Joint Board of Geospatial Information Societies on this initiative,

Recommends the International Cartographic Association to proclaim and organize an International Map Year in 2015.

7. Shared statement of ethical principles

The Conference,

Recognizing that in a number of recent intergovernmental discussions, the need for a statement of ethical principles for the geospatial information community has been raised as an important means to enhance the trust placed by the public on geospatial information,

Noting that a statement of ethical principles was discussed at the second session of the Committee of Experts on Global Geospatial Information Management,

Further noting that the Committee of Experts requested the Secretariat to consult further and report back on a “shared statement of principles”,

Realizing that several professional, industry bodies and associations already abide by ethical statements or principles,

Recommends that the Committee of Experts on Global Geospatial Information Management promulgate a statement of ethical principles for the geospatial information community.

8. Coordination between regional and global initiatives on geospatial information management

The Conference,

Recalling resolution 16 at the Thirteenth United Nations Regional Cartographic Conference for Asia and the Pacific² to form a permanent committee to discuss and agree on, inter alia, geographical information system standards, geographical information system infrastructure and institutional development, and linkage of the prospective committee with related bodies in the world, and the subsequent establishment of the Permanent Committee on Geographical Information System (GIS) Infrastructure for Asia and the Pacific in 1995,

² *Thirteenth United Nations Regional Cartographic Conference for Asia and the Pacific, Beijing, 9-18 May 1994*, vol. I, *Report of the Conference* (United Nations publication, Sales No. E.94.I.19), chap. VI, sect. B.

Acknowledging the significant progress that the Permanent Committee has made in the field of Geographical Information System infrastructure development since its establishment,

Bearing in mind that geospatial information has become an invaluable tool in policy planning and evidence-based decision-making, and hence can play a vital role in understanding and addressing national, regional and global challenges that the Member States are facing in this increasingly complex and interconnected world,

Recalling further resolution 7 at the Eighteenth United Nations Regional Cartographic Conference for Asia and the Pacific³ that requested the Secretary-General and the United Nations Secretariat to initiate discussions and prepare a report, for a future session of the Economic and Social Council, on global coordination of geospatial information management, including consideration of the possible creation of a United Nations global forum for the exchange of information between countries and other interested parties, in the light of the absence of a United Nations consultation process led by Member States, which deals with global geospatial information management,

Recognizing Economic and Social Council resolution 2011/24 of 27 July 2011, in which the Council decided to establish the Committee of Experts on Global Geospatial Information Management to provide a forum for coordination and dialogue among Member States, and between Member States and relevant international organizations, including the United Nations Regional Cartographic Conferences and their permanent committees on spatial data infrastructures, on enhanced cooperation in the field of global geospatial information,

Noting the vital roles of regional permanent committees in implementing the actions necessary to make progress in global geospatial information management at the second session of the Committee of Experts,

Recommends that the Permanent Committee on Geographical Information System Infrastructure for Asia and the Pacific enhance its role of regional and global geospatial information management, in close cooperation and coordination with the Committee of Experts on Global Geospatial Information Management among others, with a new name that represents the renewed mandate, and regularly report its progress to the Conference.

9. Twentieth United Nations Regional Cartographic Conference for Asia and the Pacific

The Conference,

Noting the progress made in geospatial information, at the national, regional and global levels, by States Members of the United Nations,

Noting also the essential role played therein both by the present United Nations Regional Cartographic Conference for Asia and the Pacific and by the Permanent Committee on Geographical Information System (GIS) Infrastructure for Asia and the Pacific,

³ *Eighteenth United Nations Regional Cartographic Conference for Asia and the Pacific, Bangkok, 26-29 October 2009, Report of the Conference* (United Nations publication, Sales No. E.10.I.2), chap. IV, sect. B.

Noting further that the Permanent Committee was established in 1994 pursuant to resolution 16 adopted by the Thirteenth United Nations Regional Cartographic Conference for Asia and the Pacific, held in Beijing,⁴

Noting that the Permanent Committee has expressed the wish to hold its meeting in conjunction with the Twentieth United Nations Regional Cartographic Conference for Asia and the Pacific,

Recognizing the necessity of continuing this important work,

Recommends to the Economic and Social Council that the Twentieth United Nations Regional Cartographic Conference for Asia and the Pacific be convened in 2015.

⁴ *Thirteenth United Nations Regional Cartographic Conference for Asia and the Pacific, Beijing, 9-18 May 1994*, vol. I, *Report of the Conference* (United Nations publication, Sales No. E.94.I.19), chap. VI, sect. B.

Annex I

Technical Committee I: Geodetic reference framework for sustainable development

1. Technical Committee I met in the afternoon of 31 October 2012, under the chairmanship of John Dawson (Australia). The Committee addressed issues associated with the sustainability and improvement of the global network of geodetic infrastructure and the International Association of Geodesy/Global Geodetic Observing System (IAG/GGOS) services and products (including the International Terrestrial Reference Frame (ITRF)).

2. The Committee also discussed the following issues:

- (a) Data-sharing: needs, common formats and security concerns;
- (b) Infrastructure development and coordination;
- (c) Developing mandates;
- (d) Technical capacity-building.

3. On the basis of discussions, the Committee developed a draft resolution with five recommendations that addressed issues associated with: (a) support for GGOS infrastructure and products; (b) ITRF and the Asia-Pacific Regional Reference Frame (APREF); (c) height datums; (d) data-sharing; and (e) capacity-building, for adoption by the Conference.

The Technical Committee submitted a draft resolution on the global geodetic framework for adoption by the Conference.

Annex II

Technical Committee II: Data-sharing and integration for disaster management

1. Technical Committee II met in the afternoon of 31 October 2012. Hadi Vaezi (Islamic Republic of Iran), Chair of Working Group II, presented a review of the work programme activities undertaken in the preceding three-year term. He noted that the fact-finding questionnaire submitted to member countries had received a poor response and that further responses were needed to enable a meaningful analysis of data and system usage across the region. Mr. Vaezi proposed a draft resolution regarding the creation of a regional geo-portal to support data-sharing and integration for disaster management, and outlined a standards-based system architecture that could support its operation.

2. The Committee discussed the following issues:

(a) A better questionnaire response may be achievable by using the questionnaire scheme of the Committee of Experts on Global Geospatial Information Management and being aligned to the inventory of issues before the Committee of Experts;

(b) The practicalities of implementing a regional geo-portal in which federated data, metadata and services form a group of national geo-portals;

(c) What type of data may be needed to meet a spectrum of user requirements associated with different types of disasters and different aspects of disaster management;

(d) What could be learned and reused from existing similar systems;

(e) How a phased and pilot-based approach could ultimately lead to an operational regional geo-portal.

3. The working group submitted a draft resolution on data-sharing and integration for disaster management for adoption by the Conference.

Annex III

Technical Committee III: Place-based information management for economic growth

1. Technical Committee III met in the afternoon of 31 October 2012, under the chairmanship of Jiang Jie (China). Jiang Jie, Ahmad Fauzi bin Nordin (Malaysia) and Simon Costello (Australia) each made a presentation on what was believed to be the scope of the Committee, namely, that place-based information is becoming increasingly recognized as an important component of Government economic development programmes.

2. This is becoming common across the region, although individual nations may have their own specific drivers and interests. National geospatial information authorities in the Asia-Pacific region have foundation information and delivery mechanisms at various levels of maturity. Sharing of geospatial expertise among national geospatial information authorities would assist in expediting the region's collective capability. Those authorities must continue to align their geospatial programmes with broad user requirements within their jurisdictions. This requires both an understanding of how geospatial information is applied in decision-making, and promotion by national geospatial information authorities of what geospatial information can be used for. The United Nations should also provide guidance on what geospatial information is required for its own programmes, given that global and regional geospatial information is ideally sourced from national geospatial information authorities.

3. The Committee submitted four draft resolutions for adoption by the Conference around rapid acquisition, platforms, capability development and promotion. A workplan was also discussed and developed. It was stressed that, where possible, existing activities being undertaken in member countries could be incorporated into a workplan, and small pilot projects would be considered, particularly for small island nations.

Annex IV

Provisional agenda for the Twentieth United Nations Regional Cartographic Conference for Asia and the Pacific

1. Opening of the Conference.
2. Election of the President and other officers of the Conference.
3. Adoption of the agenda and other organizational matters:
 - (a) Adoption of the agenda and organization of work of the Conference;
 - (b) Adoption of the rules of procedure;
 - (c) Establishment of technical committees and election of the Chair of each committee;
 - (d) Credentials of representatives to the Conference.
4. Report of the Permanent Committee on Geographical Information System Infrastructure for Asia and the Pacific.
5. Report on the implementation of resolutions adopted at the Nineteenth United Nations Regional Cartographic Conference for Asia and the Pacific.
6. Conference papers:
 - (a) Country reports;
 - (b) Invited papers on achievements and developments in geospatial information management in addressing national, regional and global issues.
7. Reports of the technical committees of the Conference.
8. Provisional agenda for the Twenty-first United Nations Regional Cartographic Conference for Asia and the Pacific.
9. Adoption of the report of the Twentieth United Nations Regional Cartographic Conference for Asia and the Pacific.

Annex V

List of documents^a

<i>Number</i>	<i>Title</i>
E/CONF.102/1	Provisional agenda
E/CONF.102/2	Provisional rules of procedure
E/CONF.102/INF/1	Documentation for the Conference
E/CONF.102/INF/2	List of participants
E/CONF.102/L.1	Organization of work
E/CONF.102/3	Report of the Permanent Committee on Geographical Information System Infrastructure for Asia and the Pacific
E/CONF.102/4	Report of the Permanent Committee on Geographical Information System Infrastructure for Asia and the Pacific Working Group 1: Geodesy Technologies and Applications
E/CONF.102/5	Report of the Permanent Committee on Geographical Information System Infrastructure for Asia and the Pacific Working Group 2: Geospatial Data Management and Services
E/CONF.102/6	Report of the Permanent Committee on Geographical Information System Infrastructure for Asia and the Pacific Working Group 3: Spatially Enabled Government and Society
E/CONF.102/7	Report on the actions taken on resolutions of the Eighteenth United Nations Regional Cartographic Conference for Asia and the Pacific
E/CONF.102/IP.1	Global perspectives on UN-GGIM vision
E/CONF.102/IP.2	Asia-Pacific countries cooperate closely to strengthen geospatial information development
E/CONF.102/IP.3	Achievements and developments in geospatial information management in addressing national issues
E/CONF.102/IP.4	Country report on spatial data infrastructure activities in Singapore (2010-2012)
E/CONF.102/IP.5	Geospatial activities, spatial data infrastructure and the economy — the Malaysian context
E/CONF.102/IP.6	Place-based information management for economic growth
E/CONF.102/IP.7	Improving spatial data management for developmental planning in India
E/CONF.102/IP.8	Spatial enablement towards managing all information spatially

^a All documents are posted, without any formal editing, on the United Nations Statistics Division website <http://unstats.un.org/unsd/geoinfo/RCC/unrccap19.html>.

<i>Number</i>	<i>Title</i>
E/CONF.102/IP.9	Challenges and potentials of place-based information management in Nepal
E/CONF.102/IP.10	The role of national geospatial authorities in disaster management — Australian perspectives 2010-2013
E/CONF.102/IP.11	Data integration and sharing for disaster management
E/CONF.102/IP.12	How the National Geospatial Information Authority of Japan responded to the Great East Japan Earthquake
E/CONF.102/IP.13	Islamic Republic of Iran activities on spatial data infrastructure and data-sharing for disaster management
E/CONF.102/IP.14	New Zealand country report
E/CONF.102/IP.15	Geospatial Information System for disaster risk management in Asia and the Pacific
E/CONF.102/IP.16	Modernization of national geodetic datum in China
E/CONF.102/IP.17	Republic of Korea geodetic framework for sustainable development
E/CONF.102/IP.18	Geospatial information in Fiji
E/CONF.102/IP.19	Geodesy for sustainable development
E/CONF.102/CRP.1	Country report on the status of geospatial information activity of Japan
E/CONF.102/CRP.2	National report of geomatics in the Islamic Republic of Iran
E/CONF.102/CRP.3	Unleashing the full potential of eKadaster on the cadastral system of Malaysia
E/CONF.102/CRP.4	Monitoring active faults in Ranau, Sabah, using Global Positioning System
E/CONF.102/CRP.5	Status of surveying and mapping in Malaysia
E/CONF.102/CRP.6	Report of Thailand on cartographic and Geographical Information System activities
E/CONF.102/CRP.7	The status of geospatial information management in China
E/CONF.102/CRP.8	Country report of Indonesia

