10\textsuperscript{TH} SOUTH EAST ASIAN SURVEY CONGRESS 2009

4 – 7 August 2009
Bali, Indonesia

PROCEEDINGS

Editor:
Ade Komara Mulyana
Gatot Haryo Pramono
Antonius B. Wijanarto
Adi Junjunan Mustafa
Sri Lestari Munajati
Dian Ardiansyah
Murdaningsih

Published by:
National Coordinating Agency for Surveys and Mapping (BAKOSURTANAL)
in collaboration with
ASEAN Federation of Land Surveys and Geomatics (ASEAN FLAG)
10TH SOUTH EAST ASIAN SURVEY CONGRESS
2009: 4 – 7 August 2009, Bali, Indonesia:
Proceedings/Editor: Ade Komara Mulyana,
Gatot Harjo Pramono, Anton B. Wijanarko, Adi
Junjunan Mustafa, Sri Lestari Munajati, Dian
Ardiansyah, Murdaningsih --- Bogor : NCASM
(BAKOSURTANAL), 2009


1. Survey – Congress
I. Mulyana, AK
WELCOME ADDRESS from THE HEAD OF NATIONAL COORDINATING AGENCY FOR SURVEYS AND MAPPING

It is my honour and pleasure to welcome all of you to the forthcoming 10th South East Asian Survey Congress 2009 (SEASC 2009).

On behalf of Indonesia, as the host country, the National Coordinating Agency for Surveys and Mapping – BAKOSURTANAL – as the Local Organizing Committee, humbly invite all related and relevant organization and companies, professionals and individuals, to join, participate and support this event.

“Integrating geo-information islands” has been chosen as the theme of this South East Asian Survey Congress in Bali, Indonesia. There is no better place to have a congress with this theme other than in the largest archipelagic country in the world. Indonesia symbolizes the efforts of integrating many islands into a united archipelago without erasing special characteristics of each island. Globally, the world is facing many issues that could not be overcome unless by mutual collaboration among organization and countries in the region through this kind of event and gathering.

Read more about the event and its' programme in this comprehensive website, for your traveling plan and schedule. The organizer has provided a wide range of activities, programme and hospitalities for your cosiness and business purpose.

Till we meet in Bali this forthcoming August 2009.

Ir. Rudolf W. Matindas, M.Sc.
Head of BAKOSURTANAL
WELCOME ADDRESS from THE PRESIDENT OF ASEAN FEDERATION OF LAND SURVEYING AND GEOMATICS

On behalf of the AseanFlag Council and the Organising Committee from Indonesia including international sponsors and partners, I sincerely invite you to attend the 10th South East Asia Survey Congress 2009 (SEASC2009) to be held in Bali, "the Ultimate Island", Indonesia from 3-7 August, 2009.

South East Asia Survey Congress, a flagship event of AseanFlag, has been an important biennial gathering for surveyors and geomatics engineers from the Asia Pacific region since 1979.

Read more about the SEASC2009 and its' exciting programme in this remarkable website, for your visiting plan and schedule. The congress programme has been designed to offer a wide range of activities including business forum, technical and post congress tours. In addition, the Organising Committee is also hosting other meetings of regional organizations at the margin of the Congress like the AseanFlag Council Meeting and AGM.

However, the success of the Congress is through the active participation of the delegates.

SEE YOU IN BALI, THIS COMING AUGUST .........

See Seng Guan
President of AFLAG
From the Editor

It is our honor to have the opportunity to host the 10th South East Asian Survey Congress, 2009 (SEASC 2009), a biennale event of AFLAG (ASEAN Federation of Land Surveying and Geomatics), fully supported by FIG (International Federation of Surveyors).

We are facing the situation where geoinformation is scattered all over the places, nor connected to each other, forming islands of geoinformation. Utilization of geoinformation for resource management and in other decision-making process will need a combination of the different data sets that may come from different organizations, institutions or even countries. Integration is the key word to optimally take the benefit of geoinformation.

Realizing that integration is one of the most pressing challenges, “Integrating Geo-information Islands” was chosen to be the main theme of the congress. Issues such as data availability, data sharing and interoperability are the key topics in the congress. However, integration and utilization of geoinformation will never stand alone without the more basic development of science and technology in this field. Therefore, the congress is also open for broader discussions in all aspect of geo-information technology.

Other than the main theme, plenary speeches discuss the topics on “Bringing Map to Our Daily Life” and “Preparing Global Surveyors”. The first topics highlights the advancement in the technology that opens up more access of the people to geospatial data, while the second topics discusses the growing global challenges faced by the geo-information world, starting from the economic challenges up to national securities. An exhibiton (the 4th Indonesian Geoinformation Technology Exhibition) to showcase the lates development in geoinformation technology complements the congress perfectly.

More than 100 papers from 17 countries have been submitted and are presented in the congress. The papers are distributed among 10 (ten) Technical Sessions, ranging from emerging data acquisition technology to new applications of geospatial data. We sincerely thank the authors for their contributions through the high quality of their papers.

Last but not least, the Programme Committee extends its sincere thanks to everybody who has contributed to the success of the congress in various ways.

Bali, August 4th 2009
The 10th South East Asian Survey Congress
Programme Director

DR. Ade K. Mulyana
Table of Content

TS-1: Emerging Spatial Data Acquisition Technology

1. Airborne and Terrestrial Scanning Technology
   1.1. Analysis of LIDAR Data for Large Scale Mapping Project
        Istarno, Djurdjani, Bambang H., Subaryono, Hartono, Dulbahri, Indonesia 1
   1.1.2. Utilization of Airborne LIDAR Data for Landslide Mapping in Forested Terrain : Status and Challenges
   1.1.3. Waterside Mapping Using the Dynamic Laser Scanner ILRIS-3DMC and the Interferometric Bathymetry Sensor SWATHplus-H
        M. Bacciocchi, P. Byham, D. Conforti, USA 3
   1.1.4. 3D Scanning and 3D Measurement for Precise Non-Topographic Applications
        H. Setan, K. Zaimuddin, Z. Majid, Malaysia 4

1.2. Advancement in Aerial Photogrammetry
   1.2.1. Accuracy Improvement of Areal Triangulation of Small Format Aerial Photogrammetry Using Additional Parameter
        Harintaka, Subaryono, A. Susanto, Hartono, Indonesia 5
        A. Ahmad, Malaysia 6
   1.2.3. The Potential Applications of Balloon Photogrammetry For Cadastre Mapping
        C.A. Rokhmana, Indonesia 7
   1.2.4. An Efficient 3D Mapping of Inaccessible, Steep and Unstable Area for Urgent Disaster Reduction Project, A Case Study : Mt. Bawakaraeng Caldera, South Sulawesi Indonesia
        Soetaat, Indonesia 8

1.3. Synthetic Aperture Radar Technology
   1.3.1. TerraSAR-X enabled Geo-Information Products and Services for Asian Development
        N. Faller, R. Duering, Germany 9
   1.3.2. Radargrammetric Error Analysis of TerraSAR-X
        A. K. Mulyana, Indonesia 10
   1.3.3. Single-Pass, Dual-Frequency, Interferometric Airborne SAR for Efficient, Wide-Area Mapping in Tropical Region
        M.L. Williams, S. Shaffer, USA 11
   1.3.4. Differentiating Digital Surface Model to Digital Elevation Model from ALOS Palsar Satellite Imagery (Case Study: East Aceh Regency, Indonesia)
        A. Julzarika, B. Sudarsono, Indonesia 12

1.4. LIDAR Related Applications
   1.4.1. GPS/INS Integration for Direct Georeferencing in LIDAR Mapping
        Subaryono, Istarno, Bambang H, Djurdjani, Hartono, Dulbahri, Indonesia 13
   1.4.2. Low-Cost Car-Based Rapid Mapping for Road Inventory
        C.A. Rokhmana, Sujoko, Indonesia 14
   1.4.3. Applications of High-Definition Surveying in Asia
        F. Khan, Singapore 15
   1.4.4. Evaluation of Clustering Techniques Efficiency for Object Extraction from LIDAR Data
        M. Maboudi, F. Samadzadegan, Sh. Malihi, Iran 16

TS-2: Interpretation and Information Extraction from Geospatial Data

2.1. Object-Oriented Classification and Vegetation Mapping
   2.1.1. Object-Oriented Classification Based on Image Segmentation for the Analysis of High-Spatial-Resolution Remote Sensing Imagery
        N.M. Farda, A. Harjoko, Indonesia 17
2.1.3. Object-Oriented Classification of Vegetation Features Using ALOS Data
M. Kamal, Stuart R. Phinn, Indonesia

2.1.4. Use of Quickbird Imagery to Map Vegetation Communities to Extract Warkworth Sand Woodlands in the Hunter Valley in Australia
L. Nariswari, A.K. Mulyana, Indonesia

2.1.5. Enhancement Technique and Removing Cloud Effect on Optical Data with Radar Data
A. Julizarika, S. Hawariyyah, Indonesia

2.1.6. Wavelet Transforms for Image Classification on High Resolution Imagery
A.B. Wijanarto, I. Sofian, Indonesia

2.2. Forest and Land Use Change Mapping
2.2.1. Contribution of TerraSAR-X for Tropical Forest Monitoring
F. von Poncet, V. Heinzel, A. Faes, F. Siegert, Germany

2.2.2. Reclassifying Forest Type Based on Vegetation and Lithology Characteristics Using GIS at Southern Johore, Malaysia
N. Kamarudin, Malaysia

2.2.3. Mapping and Monitoring Particular Crop Landuse Changes in the Selenge Aimag of Mongolia
B. Erdenee, Gegen Tana, Ryutaro Tateishi, Japan

2.2.4. Use of Remote Sensing Techniques in Lantana Mapping
S. Taylor, L. Kumar, N. Reid, Australia

2.2.5. Monitoring Wetland Cover Changes Using ALOS AVNIR 2 Data, Case Study on Brantas River Deltas at East Java
H. Subagio, Suprajaka, Indonesia

2.2.6. Driving Factors of Land Use Dynamics Towards Sustainable Development of Papua, Indonesia
Joni, A. Poniman, S. Widiyojo, Indonesia

2.2.7. Assessment on Wild Animal Habitat Based on 3S Technology - Take Takin in Gaoligong Mountains as an Example
S.H. Li, J.L. Wang, China

2.2.8. Observation of Beach Morphodynamics Based on Remote Sensing and Hydrographic Data
Wiweka, Indonesia

2.2.9. Remote Sensing Application for Distribution and Determination of Coral Reef on the Karimata Coast, West Kalimantan
NCD. Aryanto, A. Setyanto, E. Usman, Indonesia

2.2.10. Factor Loadings Analysis: Which Band Contribute More on Coral Reef Health Condition Identification
P. Wicaksono, S.H. Murti B.S., Indonesia

2.2.11. Information of The Nature: Spatial Analysis Approach
A. Rahadiati, D. Sutrisno, Suseno, H. Suryanto, Indonesia

2.2.12. Coastal Environmental Survey, An Integrated Survey for Coastal Zone Management
W. Winduprananta, Indonesia

2.2.13. A GIS-Based Decision Support System for Optimization of Potential Fishing Zone Map on the Northern Coast of Java Sea
W. Winduprananta, D. Wisayantono, I. Hayatiningsih, H. Prawira, Indonesia

2.2.14. The Role of Geospatial Data in Maritime Border Management
A. Rimayanti, S. Lokita, T. Patmasari, Indonesia

2.2.15. Atlas of Sedimentation of Garang Watershed
F. Pinem, T. Hastuti, S. Widojojo, Indonesia

2.2.16. The Economical Valuation of Small Island Resources of Kalukalukuang Island Pangkep Regency, South Sulawesi Province, Indonesia
A.C. Fitrianto, Y. Suwarno, Indonesia

2.2.17. Application of Remote Sensing Satellite Data to Support Maritime Surveillance System in Indonesia
T. Hariyanto, Indonesia

2.3. Photogrammetric Data Processing
2.3.1. Towards Implementation a Close Range Photogrammetry System for Scoliosis Detection
2.3.2. An Underestimated Simple Way to Fuse Geospatial and Spectral Data for Photomap Production
M. Karimi Ashtiani, Iran

2.3.3. The Interior and Exterior Calibration for Ultracam D
K.S. Qtaishat, M. J. Smith, D. W. G. Park, Jordan

2.3.4. A Comprehensive Test of Producing Topographic Maps with ALOS-PRISM - The First Real Indonesian Experiment
S. Tampomas, A.K. Mulyana, Indonesia

2.3.5. Temporal and Spatial Analysis of SST in the North East Asia Seas
S. H. Min, D. H. Kim, H. J. Yoon, Korea

2.3.6. Sensitivity and Accuracy Assessments of Doppler-type Hydro-Acoustic Current Profilers for Estimating Suspended Particulate Matter Concentration from Field Tests
R. Poerbandono, A. Mirza, Indonesia

2.3.7. Spatio-Temporal Variations of Harmful Algal Blooms in the South Sea of Korea

2.3.8. Trend of Sea Surface Height from Satellite Altimeter and Tide Gauges: Towards the Possibility of Unification of Indonesian Vertical Datum
L.S. Heliani, R. Anisz, P. Manurung, E. Erfandy, Indonesia

2.3.9. Landslide Detection on Slope Area Using Close-Range Photogrammetric Data
A.N. Matori, B.K. Cahyono, A. Basith, D. Atunggal, Malaysia

TS-3: Cadastral Data Management and Surveying

3.1. Cadastral Surveying
3.1.1. Roadmap of Developing GNSS CORS Networks for Cadastral Surveying in Indonesia
F. H. Adiyanto, G. Wibisono, B. Ardiantoro, Indonesia

3.1.2. CORS growth and Applications in Australia and Indonesia
C. Roberts, R. Stanaway, Australia

3.1.3. Survey Accurate National Digital Cadastral Database (NDCDB) for Peninsular Malaysia
M. K. Daud, Teng Chee Boo, P.C. Ros, R. Ismail, A.M. Nor, Malaysia

3.1.4. Effective Management of the Cadastral Surveying Data in Korea
KIM Younghyun, Korea

3.1.5. AHP-DSS and GIS, for Determining Systematic Land Tiling Area Priority
F.T.H. Feryandi, I. Herawati, I. Sumarto, Indonesia

3.2. 3D and e-Cadastre
3.2.1. 3D Cadastre for Urban Development in Singapore
Y.K. Tor, M.S. Yip, Singapore

3.2.2. Three-Dimension (3D) Cadastre for The Sake of Land Registry on Proprietary Rights of Multi-Level Houses Unit in Indonesia
N. Cholis, R.K. Yudhistiro, B. Ardiantoro, Indonesia

3.2.3. Understanding the Urgency for 3D Cadastre in Indonesia: Development & Visualization of a Hybrid 3D Cadastre Model
T. Aditya, Subaryono, Waljiyanto, Istarno, Diyono, U. Raharja, R. Murayanto, F. Iswanto, Indonesia

3.2.4. eCadastre of Malaysia
Hj Muhamed Kamil bin Mat Daud, Teng Chee Hua, Malaysia
TS-4: Web-based GIS and Mobile Mapping Service

4.0.1. The Development of Mobile Spatial Data Catalog
G.H. Pramono, Suseno, Suwahyuono, Indonesia 57

4.0.2. WebGIS Land Management
F. Ramdani, A. Winanto, Indonesia 58

4.0.3. Image Resampling using Discrete Wavelet Transform for Supporting the Web Mapping Services
B. Setyadji, S. T. Wibowo, A.B. Harto, Indonesia 59

4.0.4. Implementing of WebGIS to Disseminate Geo-Spatial Data in Supporting Rehabilitation and Reconstruction Process in Aceh–Nias
Nizamuddin, H. Ishizuka, M. Darmawan, Indonesia 60

TS-5: Geospatial Modeling and Application Development

5.1. Environmental Modeling and Application

5.1.1. Spatial Hydrology Modeling for Water Resources in Cisankuy Sub-Watershed, West Java-Indonesia,
F. Arlius, C. Asdak, T.S. Hasan, Indonesia 61

5.1.2. A Comparison of ARCGIS Modeled and Ground Recorded Solar Radiation Data and Opportunities for Utilisation in Environmental Models
L. Kumar, Australia 63

Norzailawati, M. Hashim, S.L. Maidin, Malaysia 64

5.1.4. Spatio-temporal Assessment of Climate, Land Use and Water Balance Using Spatial Tools – Case Study: West of Java, Indonesia,
Poerbandono, P.J. Ward, K. Prijatna, A. Riqqi, M.M. Julian, Indonesia 65

5.1.5. Estimation of Atmospheric Water Vapor Content Using the Radiance Values of MODIS and Comparison with Meteorological Data
M. Moradizadeh, M. Momeni, M.R. Saradjian, Iran 66

5.2. Coastal and Ocean Modeling

5.2.1. Simulation of Wind-Induced Wave During the ENSO Events by Using WAVEWATCH-III Model
I. Sofian, A.B. Wijanarto, Indonesia 68

5.2.2. An Introduction of Hydrodynamic Numerical Model as a Mapping Tools for Marine and Coastal Spatial Data
W. Windupranata, Hayatiningsih, Indonesia 69

5.2.3. Intelligent Hydro-mechanically Self-controlled Water-gate for Flood Mitigation, Water supply and Drainage in Tidal Wetland of the Coastal Zone and Flood Areas
S. Sumawiganda, R.J. Widodo, Indonesia 70

5.2.4. Simulation of Sea Surface Salinity from MODIS Satellite Data Along East Coast of Malaysia
M. Marghany, Malaysia 71

5.2.5. Sea Surface Variation of Indonesian Waters from Multi-Satellite Altimeter
L.S. Heliani, S. Dwithasari, Indonesia 72

TS-6: Spatial information related application development

6.1. Geocoding Application and GIS Data Production

6.1.1. The Utilization of Google Geocoding in Promoting Ecotourism Activities, A Case Study in the Betung Kerihun National Park (BKNP)
D. S. Cahyawati, R. Ariesca, Indonesia 73

6.1.2. Building Up the WebGIS with Map Tiles Cache Tool
Shih-Che Lin and Hsuan-Ming Liao, Taiwan 75

6.1.3. Structured Road Data Production for GIS Using Logical Relations among Features
S. Malihi, M. Maboudi, Iran 76
6.1.4. Application of Geographic Information System (GIS) for Detail Landuse Planning Result in Surabaya City
T. Hariyanto, Indonesia

6.2. Open Source Application for Geospatial Processing

6.2.1. The Utilization of Some Open-Source Software for Sustainable Geoinformatics Practice in Indonesia
A. Boluwade, D.S. Cahyawati, Germany

6.2.2. Implementation of Forest Height Estimation Using ALOS PALSAR with Open Source Software
F. Hadil, I.H. Ismullah, K. Wikantika, E.N. Megantara, Indonesia

6.2.3. Free Open Source Software (FOSS) as The Best Alternative For Developing Geographic Information System Applications Case Study: Implementation of WEB Feature Service For Public Health Facilities
T.E. Pramono, Yayan Sofyan, Indonesia

6.2.4. Integrating Google Maps Satellite Dataset and Local Spatial Dataset on Web Based GIS Application Using Open Source Technology SHARP Map and OpenLayers
O. Gumilar, Indonesia

TS-7: Geospatial Education, Teaching Society

7.0.1. Geospatial in a Novel
T.B. Sastrio, Indonesia

7.0.2. Bringing Geospatial World Into Literacy: Writing the First Geospatial Novel in Indonesia
I.M.A. Arsana, Indonesia

7.0.3. Geospatial Learning in Combating Dengue Fever Project, Study Site: The City of Yogyakarta
A.P. Perdana, H. Ardiantsyah, H. Zarodi, Indonesia

7.0.4. The Training Endorsement in Human Resources Development for Professionals in Survey and Mapping
S. Martha, A. Rinaldi, P. Pariadi, Indonesia

7.0.5. Geospatial Education in Indonesian Elementary and High Schools
S.L. Munajati, R. Windiastuti, Indonesia

TS-8: GPS Measurement and Processing

8.1. GPS-based Information Extraction

8.1.1. GPS RAIM to Support Communication Navigation Surveillance (CNS) in Indonesian Air Traffic Management (ATM)
R. Septiawan, A. Sarotama and I. Mudita, Indonesia

8.1.2. GPS-Derived Local TEC Mapping over Peninsula Malaysia during Pre-Solar Maximum of the 24th Sunspot Cycle
Leong Shien Kwun, Malaysia

8.1.3. Coseismic and Postseismic Deformation of the 2007 Bengkulu Earthquake Series
I. Meiliano, H.Z. Abidin, D. Anggreni, S. Widiyantoro and D. Gunawan, Indonesia

8.2. Real-Time Kinematic Positioning

8.2.1. ISKANDARNet: A Network-Based Real-Time Kinematic Positioning System in ISKANDAR Malaysia for Research Platform
N. S. M. Shariif, T. A. Musa, S. Ses, K. Omar, C. Rizos, S. Lim, Malaysia

8.2.2. GNSS RTK Services of the Future
C. Rizos, Australia

8.2.3. The Malaysia Real-Time Kinematic GNSS Network (MyRTKnet) in 2009 and Beyond
A.F. bin Nordin, A. bin Mohamed, Malaysia

8.2.4. Epoch Reference Definition of Boundaries Demarcation Coordiante's Set

8.3. Deformation Measurement and Geoid Mapping

8.3.1. A Re-evaluation of Land Subsidence Rate of Bangkok Metropolitan Area
I. Trisirisatayawong, Thailand

8.3.2. Geodetic Monitoring of Land Subsidence in Semarang (Indonesia)
8.3.3. The Estimation of Geometrical Movement of Landslide by using The Static and Kinematics Models at KM 15.9 of The Kalibawang Main Irrigation Channel in Kulon Progo Region
Bilal Ma’ruf, Indonesia

8.3.4. The Airborne Gravity Survey Technique for Regional Geoid Mapping in Indonesia
A.F. Kasenda, A.V. Olesen, E. Priyanto, R. Poerawardi, Indonesia

8.3.5. Evaluation of The Global Geopotential Model over The Indonesian Archipelago
I.S. Heliani, L. Fitri, Jatmiko, Indonesia

TS-9: Standardization, Interoperability, Integration of Geo-information (Latest Updates in NSDI Development)

9.0.1. The Development of Indonesia NSDI, Current Status and Direction
Henny Liliwaty, M.A. Syafii, Indonesia

9.0.2. Patience and Perseverance: Building an SDI in Aceh
N. Suwandy, P. Harris, T. Mollison, Indonesia

9.0.3. The Salb Project : The State of Progress in Asia and pacific Since the 8th SEASC
C. Subasinghe, Y. Guigoz, L. Samarakoon, S. Ebener, Thailand

9.0.4. Developing Indonesian NSDI Curriculum Program

9.0.5. Increasing Value of Spatial Information
M.A. Syafii, Indonesia

TS-10: Utilization of Geospatial Data and Information

10.1. Geospatial in Disaster Management

10.1.1. Studying Emergency Evacuation Plan for Disaster Management
M. Naghdi, M. Saadatseresht, K. Naghdi, Iran

10.1.2. Technological Disaster Crisis Management
M. Shekhar and M. C. Saxena, India

10.1.3. Rapid Mapping of Infrastructure in Maowen and Beichuan Counties after the May 2008 Earthquake
S. Kuntz, B. Scheuchl and R. Duering, Germany

10.1.4. Developing a Concept and a Prototype of Flood Disaster Hazard and Risk Map - A Case Study of Jakarta
A.J. Mustafa, A.B. Suryadi, Siti Imami, Indonesia

10.1.5. Geological Engineering Parameters Estimation of Kuala Lumpur Limestone - Remote Sensing Based and Risk Assessment
S. Ismail, Husaini Omar, Shattri Mansor, Ahmed Rosdi, Malaysia

10.1.6. Study of Weather Characteristics, Marine and Tidal Prediction Data to Estimate Coastal Flood in Jakarta
K. Sunarto, M.I.C. Maschiavelli, Indonesia

10.2. Participatory Mapping and Special Case Studies

10.2.1. Community-Based Bathymetric Mapping: The Acehnese Panglima Laot
Crispen Wilson, Indonesia

10.2.2. Geomatics for Economics Study and Business Optimization
F. Amhar, A.J. Mustafa and H. Subagio, Indonesia

10.2.3. Spatial Study of Traffic Jam Level Along “Trans Jogia” Bus Route Using Remote Sensed Data And Geographical Information System
A. Murdimanto, Indonesia

10.2.4. Internal and External Spatial Interaction of Sebatik Island Indonesia
Helman and S. Handoyo, Indonesia
10.3. Geospatial for Sustainable Development

10.3.1. A Development of Spatial Data Mining Prototype for Poor Village Characterization at West Java
H.A. Andrianto, Indonesia

10.3.2. Spatial, Temporal and Ecological Consideration in Satellite Image-Based Mapping of Crop Rotational Aspect: Cases from Several Parts of Central Java
P. Danoedoro, Indonesia

10.3.3. Prospect of A Rice Field Agro-Ecological Zone Map for Supporting National Food Security
Nurwadjedi, A. H. Atmadilaga and A. Poniman, Indonesia

10.3.4. Integration Model of System Dynamic and Spatial Dynamic to Support Regional Development Planning (Case Study in Java Madura Bali)
F. Pinem, A. Poniman, M. Darmawan, S. Widjojo, YDS. Purnomo, Indonesia

10.3.5. The Total Thinking on The Informatization of Kunming Urban Planning
Limin Wu, Yafei Feng, China