FIG Commission 8 – Spatial Planning and Development

1. Title

Spatial planning and development

2. Terms of Reference

- Spatial planning policy, implementation, monitoring and evaluation
- Land policy instrumentation for the implementation of spatial plans
- GIS tooling in spatial planning
- Rural-urban relations and dependencies
- Participatory and inclusive planning processes
- Urbanization patterns and development strategies
- Valuation in spatial planning and land use change
- Sustainable development

3. Mission statement

In a world of limited resources, of which land is the most prominent in the domain of spatial planning, the mission of commission 8 is to provide access to planning processes for all and balance the various interests in pursue of a sustainable spatial development at all governance levels both for the short- and long-term.

4. General

Changing urbanisation patterns, increasing climate extremes, technical developments, changing social and economic demands, rural-urban dependencies, and the need for sustainable development, to mention just a few developments, all pose a pressure on land use and its spatial distribution. Spatial planning is closely related to tenure as spatial developments, planned or unplanned, affect land use, land owners and its users. From this perspective, commission 8 wants to connect scientists, professionals, and practitioners from all backgrounds to foster a sustainable development at all scales (local, regional, national, supra-national).

Different localities face different developments and will respond differently to them. This commission aims to provide a platform for the spatial planning community to share and discuss such differences, and similarities of course, and find ways to respond to them, develop principles of good governance and embed them in planning practice. These will draw on established guidelines or principles such as the Sustainable Development Goals (SDG's), the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT), Fit-for-Purpose Land Administration (FFP) or Participatory and Inclusive Land Readjustment (PILaR).

The development of policies to guide spatial development is at the heart of the domain, but we also pay attention to ways to implement these policies. Participatory processes will provide a voice to stakeholders in the dialogue between stakeholders and governments. Furthermore, ongoing technical developments open up possibilities to support planning processes with GIS tools or egovernment applications. As the saying goes, a map tells more than a thousand words. One of the challenges is to appropriately integrate GIS tools into planning processes and connect to the system of available data sets.

Additionally, it is important to have a look at the instruments (instrumentation) that governments have at their disposal to implement spatial policies and in particular land use change. Land

consolidation, land readjustment, compulsory purchase / expropriation / eminent domain, land banking, pre-emption rights, and similar land policy instruments all use or affect land rights to realise the planned spatial development. Because of their impact on land rights, land policy instrumentation should be used thoughtfully to guarantee legal certainty for involved stakeholders.

In the period 2019-2022, the focus of commission 8 will be:

- To discuss strategies for the short- and long-term in the cycle of policy development, implementation, monitoring and evaluation.
- To investigate the role of land policy instrumentation to implement planned spatial development.
- To promote and advance the use of GIS tools in participatory spatial planning processes (cooperation with commission 3).
- To investigate rural-urban relations and dependencies and raise awareness in planning issues for SMART solutions.
- To discuss urbanization patterns, development strategies and their effects on communities (cooperation with commission 7).
- To investigate valuation in spatial planning related to land use change (cooperation with commission 9).
- To foster awareness for well-balanced planning decisions to support sustainable development (ecologically, economically, socially).

5. Working Groups

Working Group 8.1 Rural – urban dependency

Introduction

Rural and urban (including peri-urban) areas are important for development, because all over the world they provide space for people to live. They face similar development challenges, although differences exist as well, and therefore have common needs in terms of development Figure 1).

- Poverty
- Lack of infrastructure
- Loss of land for agriculture
- Influence of globalisation
- Climate change
- Population shrinkage
- Inadequate access to information communication technology (ICT)
- Loss of development oriented traditional cultures

Predominant rural challenges

Common development needs

- Poverty eradication
- Infrastructure development
- Sustainable land
- Climate change mitigation and adaptation
- Smart ICTs, etc.

- Poverty
- Lack of infrastructure
- · Loss of building land
- Influence of globalisation
- Climate change
- Population explosion
- Inadequate access to Information communication technology (ICT)
- · Immigration issues

Predominant urban challenges

Figure 1 Challenges and common needs of rural and urban areas

Both rural and urban areas co-exist for mutual benefits because rural resources are needed in urban areas and urban resources are needed in rural areas. There has been a big focus on urban development — especially concerning the development of sustainable, green and smart cities — with less attention paid to rural development. While the focus on urbanisation is understandable, spatial planning (and development) demands a balance (and continuum) between rural and urban development. From this perspective, rural areas deserve similar attention for them to become more liveable places. With appropriate spatial planning (and development) concepts and approaches, rural and urban areas can become socially and technologically smart spatial units. However, this is only possible if they are investigated from a continuum lens — with focus on their socio-spatial interdependencies and interrelationships.

Policy Issues

- Investigate rural urban relations and dependencies that affect sustainable spatial development.
- Identify key developments in rural areas, such as depopulation, rural land market or food security, to be addressed in a SMART way.
- Investigate approaches to urban and rural development and recommend or innovate approaches that are responsive to the urban-rural continuum of development.

<u>Chair</u>

Rosy Liao Rong - China Land Surveying and Planning Institute, People's Republic of China Email: rosyliao@outlook.com

Co-chairs

Dr.-Ing. Michael Klaus - Hanns Seidel Foundation, Germany

Email: klaus@hss.de

Mr. Eugene Chigbu – Technical University Munich, Germany

Email: ue.chigbu@tum.de

Specific project(s)

 Identify factors and delineate solutions for SMART rural development to minimize the gap between urban and rural areas.

Workshop(s)

Special session at FIG working week to discuss factors for SMART rural development

Publication(s)

Working paper on SMART rural areas (in collaboration with GLTN).

<u>Timetable</u>

2020: Deliver working paper on SMART rural areas (in collaboration with GLTN).

Beneficiaries

United Nations (GLTN), World Bank, FIG professional Associations and member organizations, Land Administrations, Civil Society Organizations, NGO'S, governments, researchers.

Working Group 8.2 GIS tools for spatial planning (joint Working Group with commission 3)

Introduction

GIS tools hold great potential to support spatial planning practice. Ongoing developments in digitalization of data sets and communities further open up possibilities to apply GIS tools in spatial planning processes. The latter typically follow a cyclic pattern: (1) development of spatial policies, (2) policy implementation, and (3) monitoring and evaluation (Figure 2). Spatial policies range from strategic visions to land use plans that at operational level determine and distribute land use types. Together with legislation and rules, these spatial policies constitute the framework for implementation of spatial policies. Programmes, projects, enforcement mechanisms and the like can be used to implement spatial policies, depending on the situational context. Finally, monitoring and evaluation is necessary to measure whether policy aims are met or need to be adapted, which may lead to the development of new spatial policies.

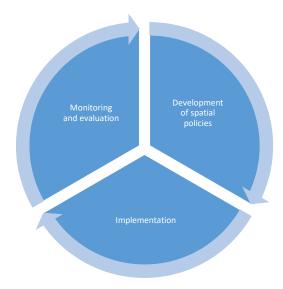


Figure 2 Spatial planning cycle

Due to the different nature of each phase in the cycle, GIS tools to support spatial planning practice will require different data specifications, functionality and usability features. This working group aims to gain a better understanding of developing useful GIS tools given a particular planning exercise, based on the different phases in the spatial planning cycle. Having appropriate and user friendly GIS tools available will create a positive spin-off in terms of enhancing information transparency and increase inclusiveness among participating stakeholders.

Policy issues

- Examine current GIS tools used in spatial planning practice and consider the potential role for future applications.
- Develop guidelines based on best practices regarding data standards, functionality and usability of GIS tools.
- Encourage the use of spatial information and public participation in spatial planning by using egovernment.
- Foster transparency, inclusiveness and legal certainty in decision-making by providing tools for stakeholders to access information and participate in spatial planning processes.

Chair

Enrico Rispoli – Consiglio Nazionale Geometri e Geometri Laureati (CNGeGL), Italy e.rispoli@cng.it

Co-chair

Adriana Czarnecka - Warsaw University of Technology, Department of Spatial Planning Email: Adrianna.Czarnecka@pw.edu.pl

Specific project(s)

- Identification and overview of GIS tools in spatial planning
- In-depth analysis of participatory GIS tools

Workshop(s)

- Joint commission 3 and 8 workshop or symposium
- Special papers at FIG working weeks or congress

Publication(s)

- Platform to disseminate the results of the GIS tools analyses.
- Publication on GIS tools for spatial planning Best practices and guidelines.

<u>Timetable</u>

- 2019 2020: analysis of GIS tools and guidelines
- 2020 (autumn): joint commission 3 & 8 meeting
- 2021- 2022: FIG publication & awareness raising

Beneficiaries

FIG Members associations, Governments, Citizens, Business (GIS solutions).

Working Group 8.3 Urban Challenges (joint Working Group with commission 7 and 9)

<u>Introduction</u>

According to the United Nations¹ urbanization prospects, by 2050 68 % of the world's population will be living in urban areas. To ensure a sustainable development and ensure access to services for all, including the vulnerable, requires considerable effort from all involved. It touches upon themes such as urban resilience (social well-being, health, services, climate), informal settlements, affordable housing and financial sustainability among others.

Policy Issues

- Scope and analyse current and future challenges for communities in small, medium, large, and megacities, in terms of urban resilience, climate change, housing and informal settlements, and fiscal health.
- Investigate principles of traditional tribal communalism and understand how those principles can be successfully reintroduced into contemporary residential development.

¹ United Nations, 2018. World Urbanization Prospects: The 2018 revision.

- Explore current practices around the globe for tackling urban housing issues and combine existing research which forecast future practices.
- Investigate critical success factors of existing high-density living arrangements (environmental, social, legal, etc).
- Contribute to the dissemination of best practices of how spatial planning can contribute to address the present and future urban challenges.
- Investigate the potential contribution of land-based finance to addressing these urban challenges.
- Develop an audit tool for the assessment of sustainable municipal finance, fiscal health and land-based value capture tools in relation to the urban challenges.
- Posit alternative future design models and provide guidance for governments, municipalities, communities and professionals on incorporating these models into current practises for sustainable, spatially informed, and sociable city-living.

Chairs

This WG will be led by a chair from each involved commission, together collaborating on the proposed activities.

Commission 8:

Erwin van der Krabben – Professor of Planning and Property Development in the Department of Planning, Radboud University Nijmegen, the Netherlands

Email: e.vanderkrabben@fm.ru.nl

Co-Chairs

Commission 8:

James Berghan – School of Surveying, University of Otago, New Zealand

Email: james.berghan@postgrad.otago.ac.nz

Claire Buxton – Licensed Cadastral Surveyor New Zealand

Email: clairelouisebuxton@gmail.com

Specific project(s)

- Vertical villages: A sense of community in high-density living environments. Building sociallybased land tenure in spatial planning. Focus on urbanized areas, in particular high rise buildings.
- Ecology of community: Incorporating socially-based tenure principles into contemporary urban residential development.
- Land based financing and land value capture is one of the key elements of the new urban agenda
- Development of audit tool for municipal fiscal stress and land-based value capture tools for climate change investments

Workshop(s)

 Joint commission 7, 8 and 9 technical session at FIG working weeks, e.g. a roundtable or workshop at FIG Working Week in Amsterdam, 2020.

Publication(s)

Articles on vertical villages and ecology of community.

- Working paper with best practices of spatial planning contributions to addressing global urban challenges
- Working paper with innovations in municipal (land-based) financial tools for sustainable urban development

<u>Timetable</u>

- 2019: analysis of best practices
- 2020: development of audit tool for municipal fiscal stress and land-based value capture tools for climate change
- 2020: special session commission 7, 8 and 9 at FIG 2020 or otherwise a joint meeting
- 2021: joint commission & Financing Clean Air workshop
- 2022: assessment tool and guidance documents presented at FIG Working Week, Cape Town

Beneficiaries

United Nations (UN Habitat), World Urban Forum, World Bank, FIG professional Associations and member organizations, governments, NGO'S, researchers, indigenous and urban communities globally. This project will contribute to the achievement of the 2030 Agenda for Sustainable Development, in particular, with regard to Sustainable Development Goal 11: Make cities inclusive, safe, resilient and sustainable. In particular, this project will seek to understand how high density living can be achieved to create positive socially sustainable outcomes for residents.

Working Group 8.4 Land policy instruments for spatial development

Introduction

Land, being a limited resource, requires some form of land management to foster a sustainable development. Demand for land, for instance for food production, housing, nature conservation, or infrastructure, surpasses supply. Moreover, supply of appropriate land does not necessarily meet demands regarding its spatial distribution. This working group focuses on international available land policy instruments that may support stakeholders, mostly governments, upon the implementation of spatial policies and spatial redistribution of land to foster a sustainable spatial development.

Policy Issues

- Analyse available land policy instrumentation, such as land banking, expropriation, land consolidation, land readjustment, expropriation, pre-emption rights to implement spatial objectives for a sustainable development.
- Foster the dissemination of international practice of land policy instruments and their applications.
- Establish and distribute a generic legislative framework for land consolidation.
- Develop and describe a generic process for land consolidation to foster the development of a generic and modifiable open source GIS tool to support the implementation of land consolidation in various countries.

Chair

Dr. Morten Hartvigsen – LANDNET / Food and Agriculture Organisation of the United Nations (FAO), Regional Office for Europe and Central Asia, Hungary

Email: morten.hartvigsen@fao.org

Co-chairs:

Prof. dr. Walter de Vries – Technical University Munich

Email: wt.de-vries@tum.de

Ms. Wioleta Krupowicz – Warsaw University of Technology, Department of Spatial Planning

and Environmental Sciences, Poland Email: wioleta.krupowicz@pw.edu.pl

Mr. Rodrigue Bazame – Ankara University, Real Estate Development and Management Department, Turkey

Email: Rodrigue.Bazame@ankara.edu.tr

Specific project(s)

- Develop and describe a generic process for land consolidation
- Investigate possibilities to develop a generic, modifiable open source GIS tool to support land consolidation, and ultimately have it developed.
- Compare international land policy and instrumentation practices

Workshop(s)

- Joint commission 8 & LANDNET meeting preferably in 2019 and 2021
- Special papers at FIG working weeks or congress

Publication(s)

- Joint FIG / FAO publication(s) on land consolidation
- Working paper with best practices of land policy tools across Europe & Central Asia & worldwide

<u>Timetable</u>

- 2019: joint commission 8 & LANDNET workshop / symposium (autumn)
- 2020: a special session at FIG 2020
- 2021: joint commission 8 & LANDNET workshop / symposium (autumn)

Beneficiaries

Governments, Citizens, stakeholder groups, FIG and LANDNET members and participants

Working Group 8.5 African Water Governance

Introduction

Resilience applies to both the industrialised and less-industrialised parts of the world and is associated with many aspects of human activity, often responding to the effects of climate change. It could be related to food, water, land, or energy scarcities. It could relate to living by the coast and the threat of sea level rise and storm surges, or in mountainous areas threatened by glacial deluge, or in arid areas with erratic rainfall, or on small or low-lying islands facing increasingly violent storms. It could also relate to living in rural areas or in urban situations. Whenever and wherever there is a threat of a natural hazard (such as flooding, drought, heatwave), then there is an associated need to be resilient to "come back" after the effects of that hazard have been endured.

Development gains can be quickly wiped out by a natural disaster directly, a surge in prices (as a consequence of a disaster), or a resource conflict. Gains could also be undermined over time by the cumulative effects of stressors such as climate change; environmental degradation; water, food, and energy scarcity; and economic uncertainty. While humanitarian responses to crises have saved lives and helped to restore livelihoods, such efforts have not always addressed underlying vulnerabilities. A resilience-building approach helps to address the damaging effects of shocks and stressors before, during, and after crises, thereby minimising human suffering and economic loss. The ability and capacity to "come back" is a measure of the individual or collective resilience. In this working group, we focus on resilience in urbanised areas in Africa from a water governance perspective and the role of surveyors.

Policy Issues

- Scope and analyse current and future challenges for communities in small, medium, large, and megacities, in terms of the resilience of water governance;
- Investigate the principles of conventional water governance and understand how those principles could be re-configured or aligned with climate change imperatives;
- Explore current practices around Africa for managing water resources and combine with climate change predictions and population growth scenarios;
- Investigate and document critical success factors when managing water resources;
- Contribute to the dissemination of good practice in managing water resources for resilience; and
- Propose alternative future scenario strategies for managing water resources and provide guidance to governments, municipalities, communities and professionals on reflecting these potential futures into current practice for sustainable, spatially-informed water governance.

<u>Chair</u>

Richard Pagett - Professor of Sustainable Development, European Centre for Peace and Development United Nations University for Peace, Belgrade, Serbia

Email: secure@richardpagett.com

Co-Chair

Isaac Boateng - Senior Lecturer, Department of Construction and Wood Technology University of Education, Winneba, Kumasi-Campus, Ghana

Email: work: <u>isaac.boateng@uew.edu.gh</u>

Specific project(s)

 Develop and describe a generic process for building resilience into urban water governance particularly from the perspective of the role of surveyors

Workshop(s)

• Technical session at FIG working week in Amsterdam, e.g. a round table or workshop.

Publication(s)

 Working paper with good practice of resilience planning to address African water governance challenges

Timetable

- The Working Group will be established for two years.
- **2019**:
- Scope and analyse current and future of the resilience of water governance in Africa
- Establish how conventional water governance could be re-configured or aligned with climate change imperatives
- o Document critical success factors when managing water resources
- **2020**:
- Technical session at FIG Working Week in Amsterdam
- Working paper:
 - Present alternative future scenario strategies for managing water resources
 - Provide guidance to governments, municipalities, communities and professionals on reflecting these potential futures into current practice for sustainable, spatially informed, water governance

Beneficiaries

United Nations, World Bank, FIG Professional Associations and member organisations, African governments, NGOs, researchers, rural, peri-urban and urban communities. This project will contribute to the achievement of the 2030 Agenda for Sustainable Development, in particular, with regard to Sustainable Development Goals 3 (Good Health and Well-being), 6 (Clean Water and Sanitation), 11 (Sustainable Cities and Communities) and 13 (Climate Action).

6. Co-operation with other commissions and organisations

Commission 8 intends to cooperate with commissions 3, 7, and 9, specifically on similar topics addressed by these commissions. Each commission will contribute to the topic from their perspectives, knowledge and expertise. Commission 8 will look at the topics through the lens of spatial planning.

Cooperation with commissions 3 and 7 & 9 is established in two working groups jointly chaired by respective commissions.

Apart from that, commission 8 will actively support the involvement of Young Surveyors into commission work. Therefore, several young surveyors are involved in particular in Working Group 8.3.

7. Co-operation with United Nation Organisations, Sister Associations and other Partners

Commission 8 will use opportunities to work together with relevant organisations and networks in the field of spatial planning. Working Group 8.4 involves among others <u>LANDNET</u> - a network for professionals in Central and Eastern European countries, representing the government, the private sector, NGO's, universities and other research institutes. The aim of the LANDNET is to stimulate proper and timely responses to (changing) needs of society regarding land use and land tenure in rural and peri-urban areas.

Other relevant networks, such as <u>AESOP</u> (Association of European Schools of Planning), and in particular their thematic group <u>Planning Law and Property Rights</u> (PLPR), <u>Food and Agriculture</u>

Organisation (FAO), LANDac, GLTN or UN-Habitat. Activities may relate to publications, projects, or otherwise.

8. Commission Officers

Commission Chair

Marije Louwsma International advisor Cadastre, Land Registry and Mapping Agency The Netherlands Tel. +31 88 183 4463 Mob. +31 6 23666419

Email: marije.louwsma@kadaster.nl

Chair of Working Group 8.1

Ms. Rosy Liao Rong China Land Surveying and Planning Institute The Ministry of Land and Resources Beijing The Peoples' Republic of CHINA

Email: rosyliao@outlook.com

Chair of Working Group 8.2

Geom. Enrico Rispoli Consiglio Nazionale Geometri e. Geometri Laureati (CNGeGL) Piazza Colonna, 361 I-00187 Rome **ITALY** Tel. + 39 06 4203161

Email: e.rispoli@cng.it

Chair of Working Group 8.3 on behalf of commission 8

Erwin van der Krabben Professor of Planning and Property Development Department of Planning Radboud University **NETHERLANDS**

Tel. +31 24 3611254

Email: e.vanderkrabben@fm.ru.nl

Chair of Working Group 8.4

Morten Hartvigsen
Food and Agriculture Organisation of the United Nations (FAO)
Regional Office for Europe and Central Asia
Benczur u. 34.
H-1068 Budapest
HUNGARY

Tel. +36 30 59 8455

Email: morten.hartvigsen@fao.org

Chair of Working Group 8.5

Richard Pagett
Professor of Sustainable Development
European Centre for Peace and Development (ECPD)
United Nations University for Peace
Terazije 41 Belgrade
SERBIA

Tel. +381 11 3246 041

Email: secure@richardpagett.com

Marije Louwsma
Chair, FIG Commission 8
www.fig.net/commission8

December 2018