

Seventh Session of the Committee of Experts on UN-GGIM

Forum

# Secure Land Rights and Smart Cities - Making It Work for Sustainable Development

# WELCOME

Monday, 31 July 2017

United Nations Headquarters, New York



UN-GGIM Academic Network

UN-GGIM Geospatial Societies

UN-EG-LAM

UN-GGIM Private Sector Network

In collaboration with:

**Seventh Session of the Committee of Experts on UN-GGIM**

**Forum**

**Secure Land Rights and Smart Cities -  
Making It Work for Sustainable Development**

**WELCOME and Opening Remarks**

**Professor Abbas Rajabifard**  
Chair, UN-GGIM Academic Network

**Mr. Stefan Schweinfest**  
Director, United Nations Statistics Division



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# **Secure Land Rights and Smart Cities - Making It Work for Sustainable Development**

## **Setting the Scene**

**Professor Abbas Rajabifard**

Chair, UN-GGIM Academic Network



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# Acknowledgment

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UNITED NATIONS INITIATIVE ON  
GLOBAL GEOSPATIAL  
INFORMATION MANAGEMENT



**UN-GGIM**

ACADEMIC NETWORK



**UN-GGIM**

PRIVATE SECTOR NETWORK



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# Acknowledgment: Speakers and Moderators



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# UN-GGIM Academic Network

The Academic Network is a formal body constituted as part of the United Nations Global Geospatial Information Management (UN-GGIM).

UN-GGIM Academic Network is the strategic knowledge, research and training Arm of UN-GGIM.



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# Forum Aim and Objectives

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DEVELOP A  
ROADMAP &  
RESEARCH  
AGENDA

PRESENT  
CURRENT LAND  
TENURE AND  
PRACTICE IN  
SMART CITIES  
AND DISCUSS THE  
LATEST  
INNOVATION,  
RESEARCH

CONTRIBUTE TO  
KNOWLEDGE

DIALOGUE &  
EXCHANGE  
IDEAS

EXPLORE SMART  
FUTURE CITIES  
FOR ALL

ESTABLISH AND  
EXTEND  
PARTNERSHIPS



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# Structure

- 4 Sessions
- 17 Presentations
- 1 Panel

| OPENING SESSION   |  |
|---|--|
| 10:00-10:20   | Welcome and Opening Remarks: Setting the Scene   |
| SESSION 1: SUSTAINABLE DEVELOPMENT GOALS: MAJOR DRIVERS, OPPORTUNITIES AND CHALLENGES |  |
|   | UN-GGIM Perspective                              |
|   | UN-GGIM EG-LAM Perspective                       |
| 10:20-11:20   | UN-GGIM Americas Perspective                     |
|   | Private Sector Network Observation               |
|   | The Role of Surveyors and Spatial Professionals  |
| SESSION 1: LAND TENURE AND SMART FUTURE CITIES  |  |
|   | Land Tenure: Current Situation                   |
|   | Smart Cities for All                             |
| 11:20-12:30   | Good Governance for a Smart World                |
|   | Smart Citizen                                    |
|   | Technologies and Standards                       |
| 12:30-13:30 LUNCH   |  |
| SESSION 3: SPATIAL ENABLEMENT AND REQUIREMENTS  |  |
|   | Data Availability and Gaps                       |
|   | Legal and Policy Requirement                     |
| 13:30-14:40   | The Geospatial Capacity Building Ecosystem       |
|   | UADI: Indicators Registration Platform           |
|   | Next Generation Spatial Knowledge Infrastructure |
| SESSION 4: PANEL DISCUSSION: POTENTIAL STRATEGY AND WORKPLAN/WAY FORWARD              |  |
|   | UN-GGIM  |
|   | Legal and Policy Frameworks                      |
| 14:40-15:40   | UN-GGIM Geospatial Societies                     |
|   | UN-GGIM Private Sector Network                   |
|   | UN-GGIM Academic Network                         |
| CLOSING SESSION WRAP UP – FUTURE PLAN AND WAY FORWARD                                 |  |
| 15:40-16:00   | Closing Remarks: Way Forward                     |



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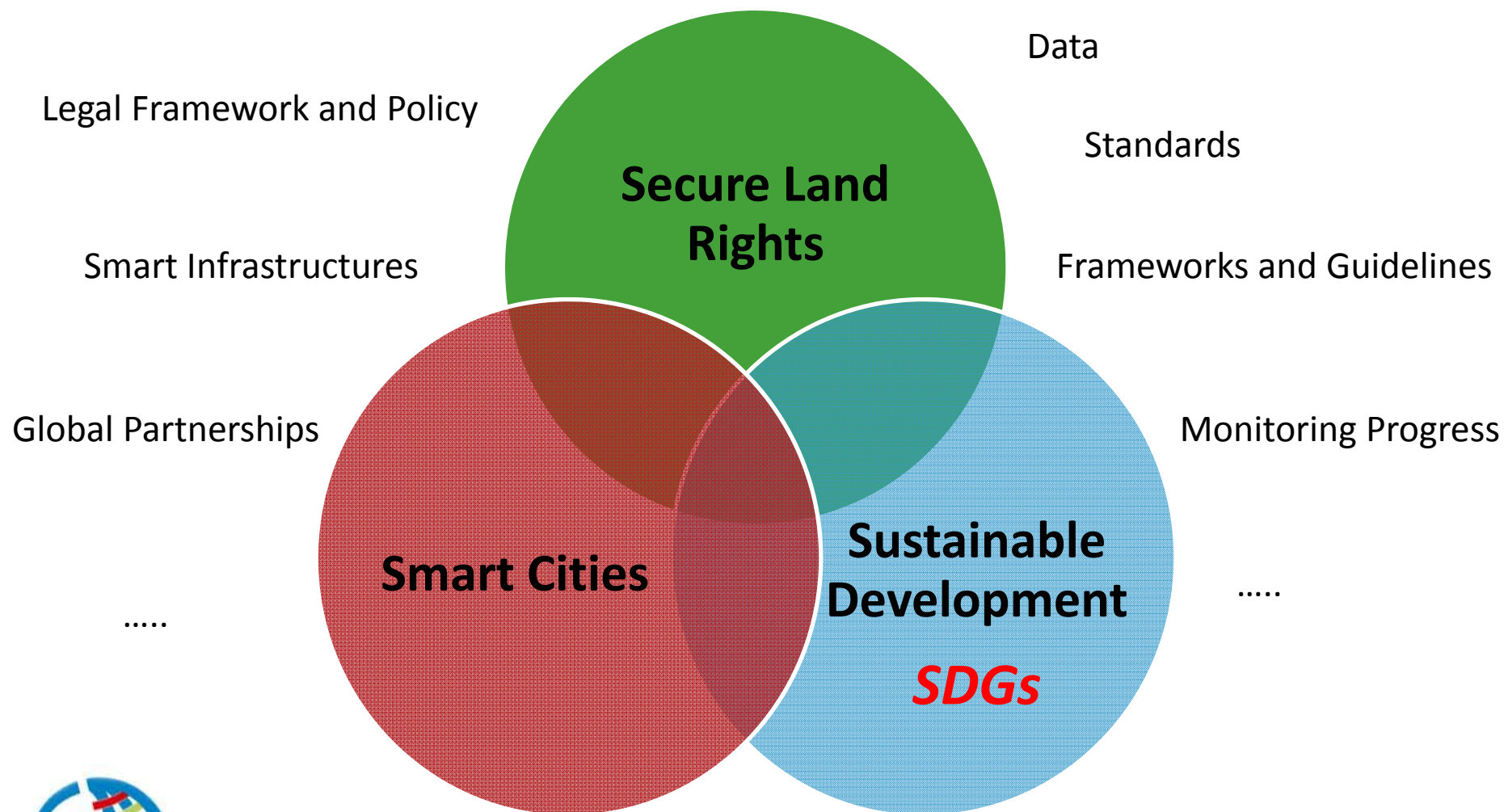
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# Secure Land Rights, Smart Cities, and Sustainable Development



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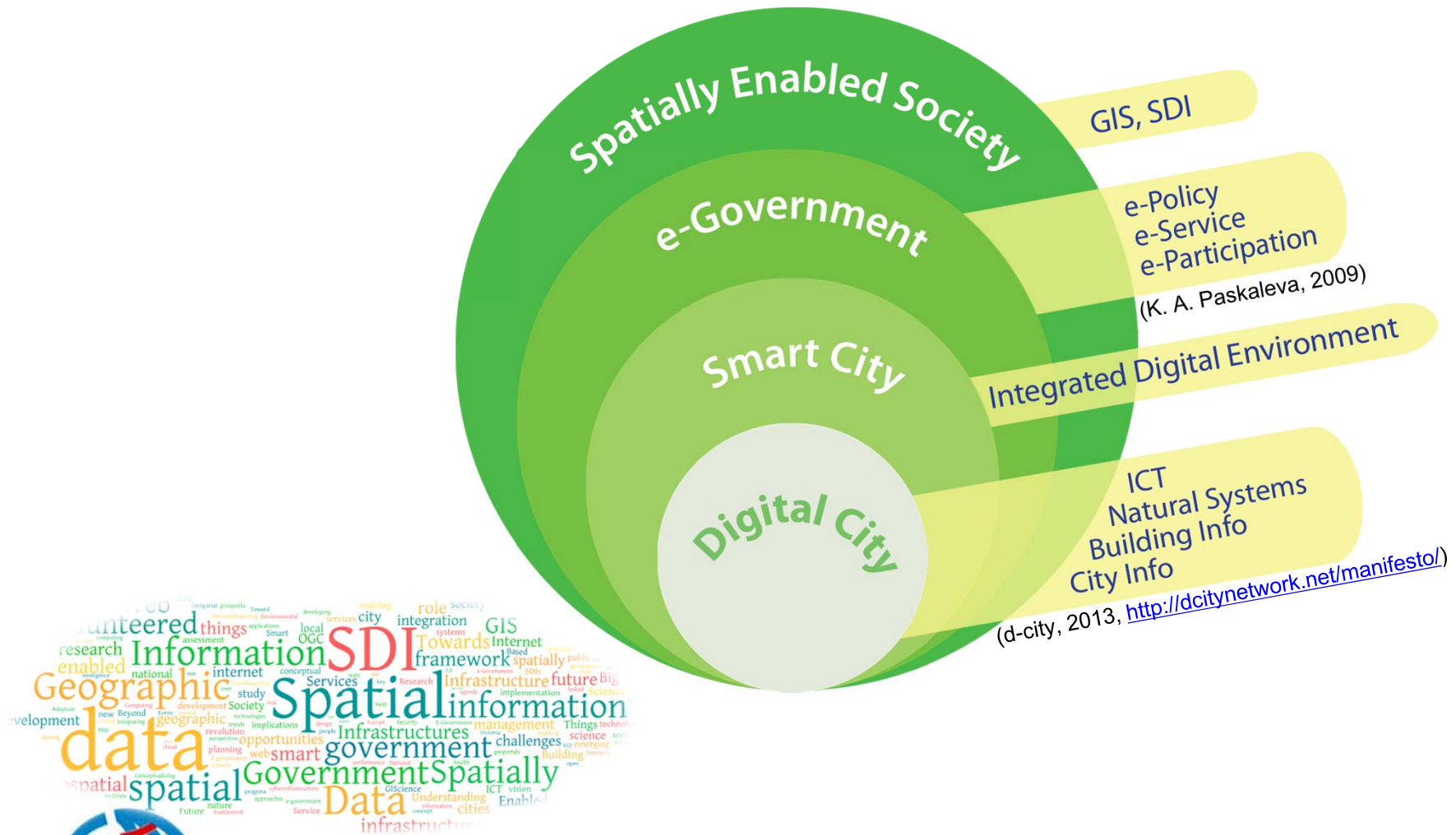
# Key Drivers

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- Population Growth & Increasing urban complexity;
- Digital Economy;
- Moving from being “*Sustainable*” to Productivity & “*Regenerative*”;
- Connected, automated and shared services;
- Needs and opportunities in the context of future cities;
- 3D land and property info to support future planning and management (leveraging BIM/PIM)/vertical Living;
- IoT, BigData and Cybersecurity;
- Making sense of smart data, smart utilities, 4D data.



# Spatial Evolution-*Key Developments and Initiatives*



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# The Smart City Movement-*Major Outcomes...*

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**Spatial Data** 3DCadastre  
Community Space Indoor  
Public ISO Analytics  
Opendata Design Visualisation  
GIS eGovernance Transport  
SDGs OGC IoT Sustainable  
Smart ICT BIM BigData  
Engagement 3DCity  
Sensors Shared Data  
Collaboration Connected Society



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# Secure Land Rights, Smart Cities, and Sustainable Development

Legal Framework and Policy  
Data  
Standards  
Smart Infrastructure  
Secure Land Rights  
Frameworks and Guidelines  
**Requirements: Strategic Roadmap to make it work for the SDGs**

Global Partnerships  
Monitoring Progress  
Smart Cities  
Sustainable Development  
SDGs  
**Spatial Data Infrastructure— the backbone in efficient government and governance**



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# Serving Multiple Goals

Secure and equitable land rights for women, men, indigenous peoples and local communities

Directly serve



Reinforce progress on



(Secure and equitable land rights in the Post-2015 Agenda, Technical Briefing, 2015)



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# Enabling Technologies for Secure Land Rights

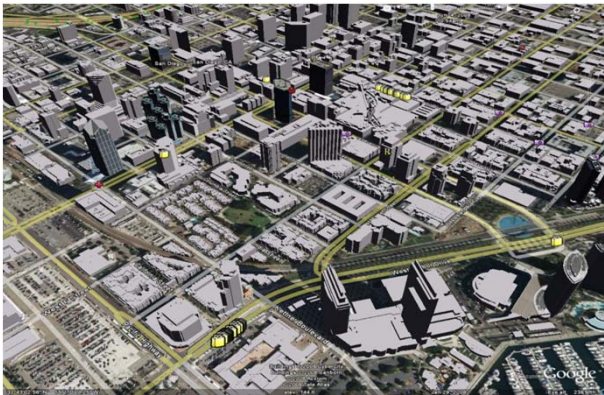
## Satellite Imagery



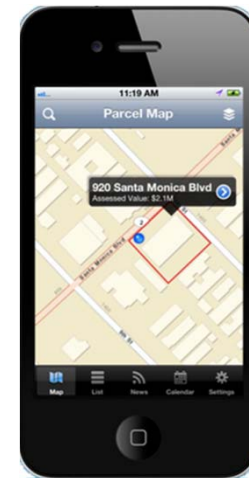
## Imagery from Drones



## 3D Digital Models



**Authoritative &  
Crowd sourced  
Information**



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# Making Our Cities Smarter and more Sustainable- Land Rights and the **SDGs**



Secure and equitable land rights are key to achieve sustainable development for all, and particularly **Goals 1, 2, 5, 11, and 15.**



A stand-alone target promoting women's land rights in Goal 5 on gender equality and a reference to both women and men in all the other land-related targets is essential.

(Secure and equitable land rights in the Post-2015 Agenda, Technical Briefing, 2015)



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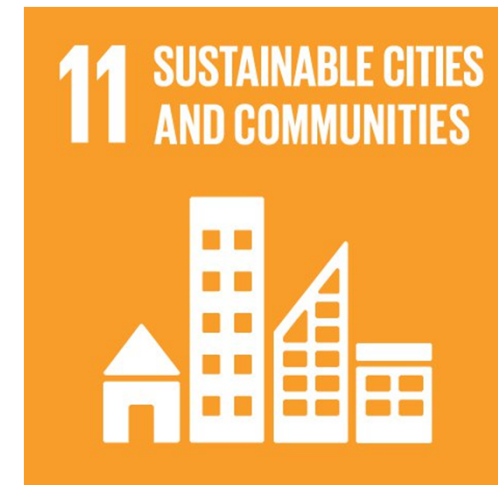


# BY 2030...

**“Make cities and human settlements inclusive, safe, resilient and sustainable.”**

## ***Indicators:***

- Housing and basic services
- Transport systems and road safety
- Inclusive and sustainable urbanisation
- Protect and safeguard cultural and natural heritage
- Reduce impact of disasters; Hyogo framework
- Reduce environmental impact of cities
- Access to green and public spaces
- National and regional planning
- Sustainable and resilient buildings using local materials



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# Land Rights Indicators in the Post-2015 SDGs

## Recommendations for Inter-Agency Expert Group & Other Policymakers

### Priority Land Rights Indicator

**1** Percentage of women, men, indigenous peoples, and local communities (IPLCs) with secure rights to land, property, and natural resources, measured by  
a. percentage with legally documented or recognized evidence of tenure<sup>4</sup>, and  
b. percentage who perceive their rights are recognized and protected

### A Complementary Area Indicator On Common Land

**2** Proportion (area) of common land under the tenure of indigenous peoples and local communities that is legally recognized, secured, documented, and protected, and that guarantees equitable access and use to women and men (UNEP)

[www.oxfam.org/en](http://www.oxfam.org/en)



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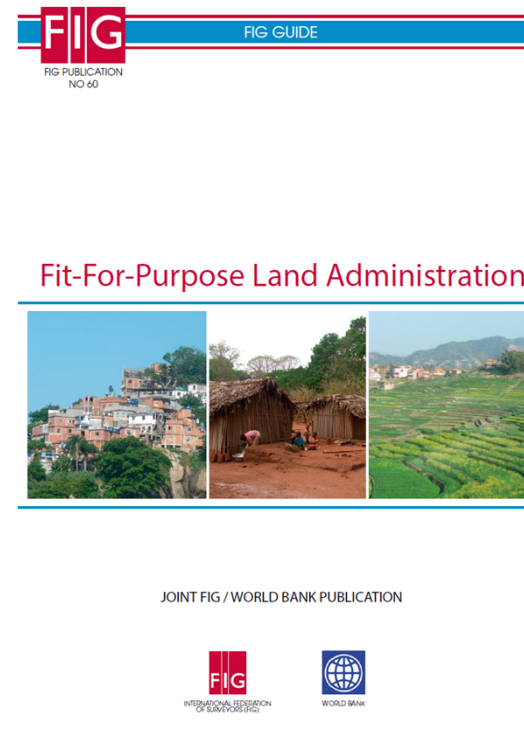
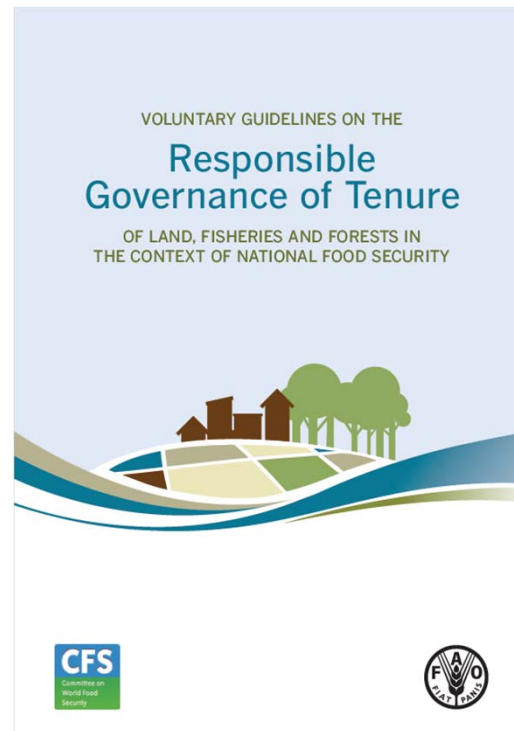
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# A Key Issue in the Future We Want

- The Land Rights Indicators are **Meaningful**
- The Land Rights Indicators are **Universal**
- The Land Rights Indicators are **Feasible**

[www.oxfam.org/en](http://www.oxfam.org/en)

## Other Issues



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# The Sustainable Development Report 2017

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**Acceleration is needed**



**Progress is uneven**



**Harnessing the power of data**



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# Forum Objectives

Present the **current status of land tenure and land rights** and discuss, research and practice in **smart cities**;

**Establish a dialogue** and exchange ideas around land rights and explore the relationships between that and smart cities to address the challenges and opportunities;

To **identify relevant challenges and opportunities** for the development of effective strategies to secure land rights and smart cities for sustainable development and build and strengthen capability concerning geospatial information and their use, particularly in developing countries;

To **develop a roadmap** that promotes the development of policies, methods, standards and mechanisms to overcome the challenges and create a better linkage between land tenure, land rights and smart cities for all;

**Develop a future work plan** and research agenda to assist UN-GGIM and member states to respond to the **SDGs**.



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Thank you!

**Professor Abbas Rajabifard**

Chair, UN-GGIM Academic Network

Director, Centre for SDIs and Land Administration

Melbourne School of Engineering, The University of Melbourne

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# **Secure Land Rights and Smart Cities - Making It Work for Sustainable Development**

## **Session 1**

**Sustainable Development Goals: Major Drivers,  
Opportunities and Challenges**



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# SESSION 1

Moderator: Prof. Abbas Rajabifard

## Sustainable Development Goals: Major Drivers, Opportunities and Challenges



**Mr. Greg Scott**



**Dr. Chryssy Potsiou**



**Mr. Kees de Zeeuw**



**Ms. Denise McKenzie**



**Mr. Rolando Ocampo**



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**Session 2**

**Land Tenure and Smart Future Cities**

**Moderator: Prof. Huayi Wu**



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# SESSION 2

Moderator: Prof. Huayi Wu

## Land Tenure and Smart Future Cities



**Mr. Kees de Zeeuw**



**Prof. Maria Brovelli**



**Ms. Maryam Rabiee**



**Ms. Denise McKenzie**



**Prof. Joep Crompvoets**



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# **Secure Land Rights and Smart Cities - Making It Work for Sustainable Development**

## **Session 3**

**Spatial Enablement and Requirements**

**Moderator: Joep Crompvoets**



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# SESSION 3

Moderator: Prof. Joep Crompvoets

## Spatial Enablement and Requirements



**Dr. Kumar Navalur**



**Prof. Abbas Rajabifard**



**Prof. Harlan Onsrud**



**Dr. Lesley Arnold**



**Prof. Josef Strobl**



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**Secure Land Rights and Smart Cities -  
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**Panel Discussion**

**Potential Strategy and Work Plan/Way Forward**

**Moderator: Prof. Harlan Onsrud**



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# Panel Discussion

Moderator: Prof. Harlan Onsrud

## Potential Strategy and Work Plan/Way Forward



**Dr. Li Pendge**



**Mr. Sanjay Kumar**



**Dr. Kevin Pomfret**



**Prof. Menno-Jan Kraak**



**Mr. Dave Lovell**



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