**FIG e-Working Week
22 June 2021**

Real Estate Registration and Cadastre - Practical Lessons and Experiences

*Gavin Adlington
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Rumyana Tonchovska, UNFAO
Robin McLaren*

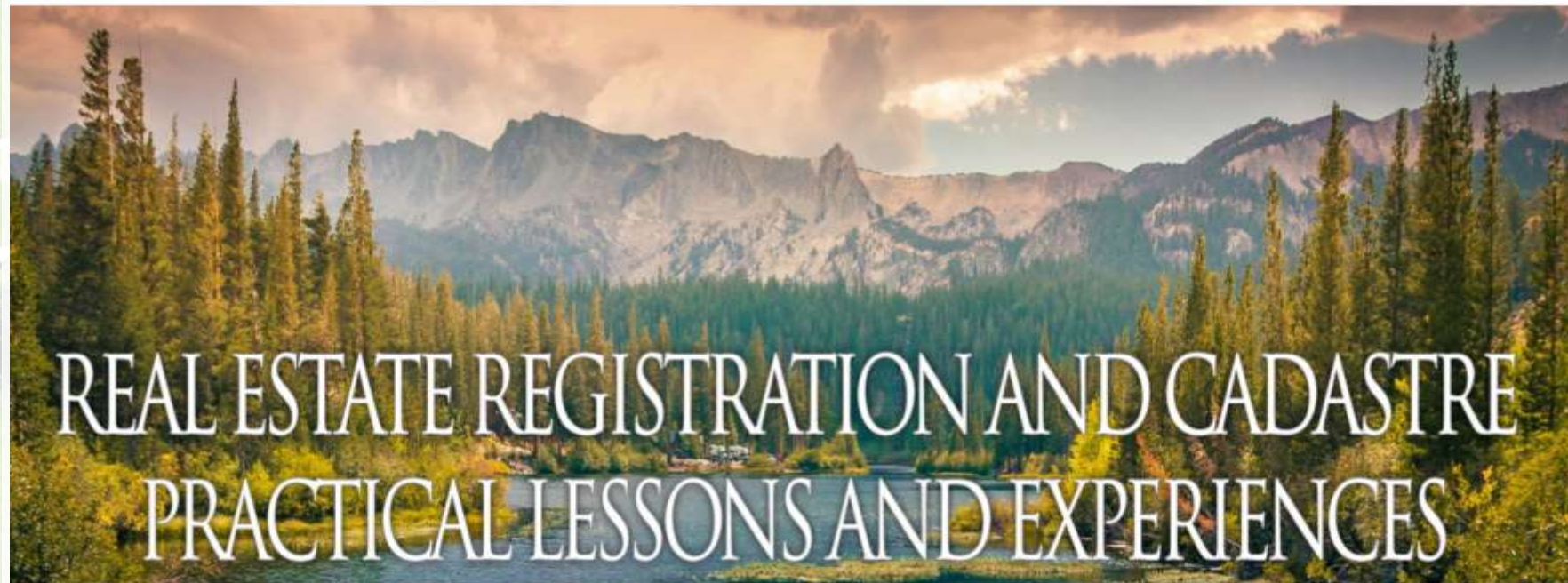Food and Agriculture Organization of the United Nations

GADLANDREG

HOME   CHAPTERS   ABOUT US   Q&A   YOUR STORIES

REAL ESTATE REGISTRATION AND CADASTRE PRACTICAL LESSONS AND EXPERIENCES

WELCOME

Free download*: https://gadlandreg.com/*
*Downloaded in 118 countries by
more than 2500 individuals*

The book with the title above was prepared by Gavin Adlington, with contributions by Tony Lamb, Rumyana Tonchovska and Robin McLaren.

A practical guide to preparing, implementing and ensuring sustainability of reforms to property rights registration systems.

Real Estate Registration and Cadastre

Practical Lessons and Experiences - Chapter 8. IT Systems for Cadastre and Property Registration

Gavin Adlington

With specialist chapters from:
Tony Lamb, Rumyana Tonchovska and Robin McLaren

"As in many areas of professional activity, there is a theory and there is a practice. The former tends to be based on the ideal, or what is assumed to be, while the latter deals with hard facts and reality and is the starting point for this book."

Professor Peter Dale
Author of the Forward section of the e-Book

THE AUTHORS

Real Estate Registration and Cadastre

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The Audience for This Book

1. Heads/ Senior Staff of Government Agencies

2. All those actively involved in real estate registration and cadastre programs

3. Consultants

4. Students and Researchers

Annex 1: Book List *is very important*

COMING SOON

REAL ESTATE REGISTRATION AND CADASTRE

Insights on How to Make It Work When Reform is Needed

Gavin Adlington
Tony Lamb
Rumyana Tonchovska, UNFAO
Robin McLaren

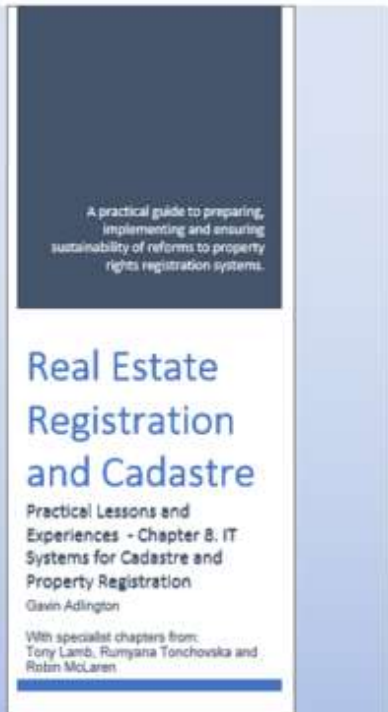*Publisher:*
Royal Institution of Chartered Surveyors

Real Estate Registration and Cadastre

Insights on How to Make It Work When Reform is Needed

THE CHAPTERS OF THE EBOOK

A practical guide to preparing, implementing and ensuring sustainability of reforms to property rights registration systems.

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CHAPTER 2

KNOW YOUR COUNTRY, KNOW YOURSELF AND KNOW YOUR TEAM

IT IS ESSENTIAL TO KNOW WHAT YOU DON'T KNOW!

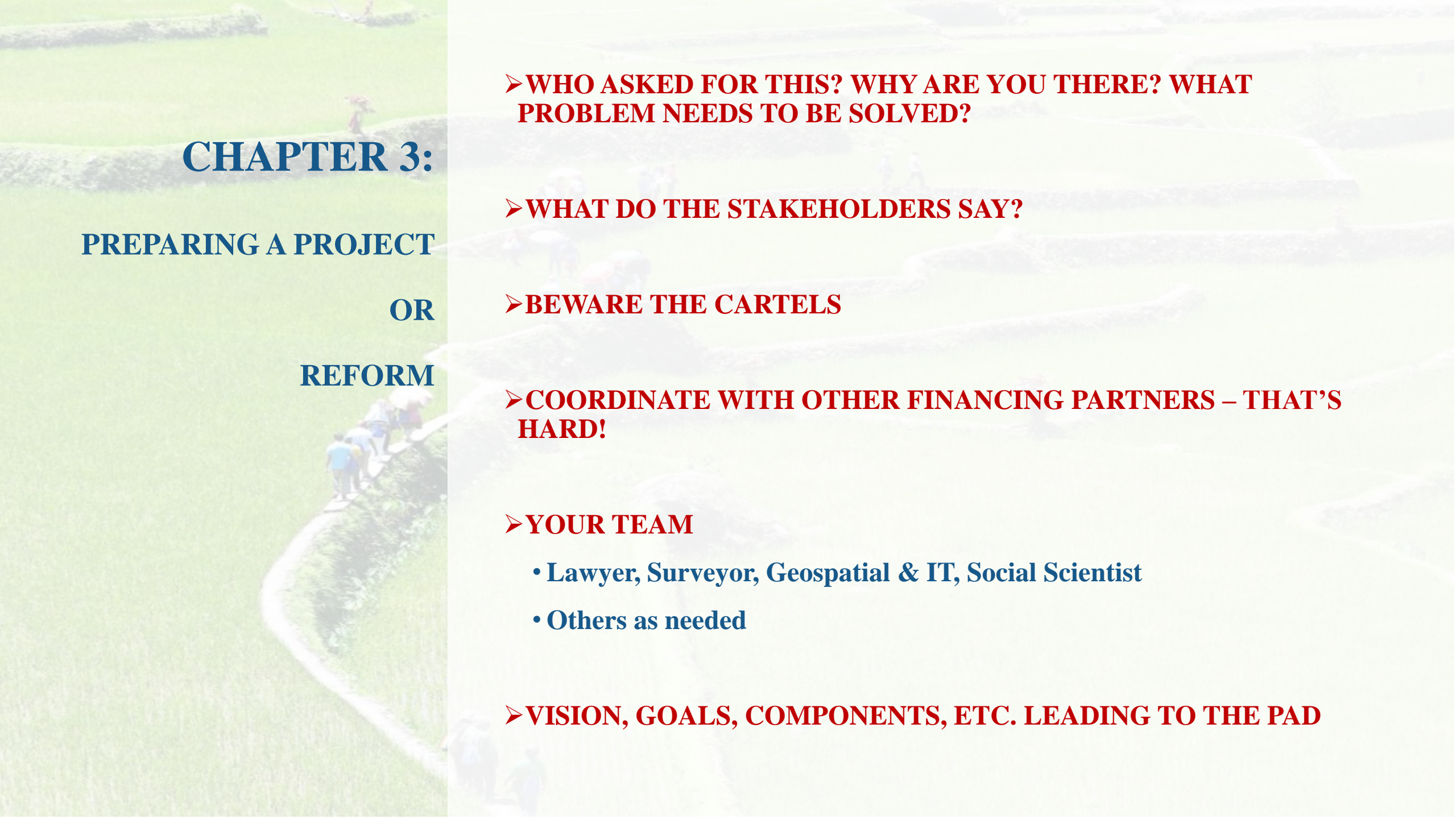➢ **HAVE SOME RESPECT FOR THE COUNTRY YOU ARE VISITING AND THE PEOPLE THAT YOU INTERACT WITH.**

- Don't waste their time – think from their perspective.
- They know their own country better than you.

➢ **CAN YOU BE AN EXPERT IN SOMETHING YOU HAVE NEVER DONE?**

➢ **KNOW YOURSELF AND YOUR TEAM**

- Technician
- Professional – what's the difference?
- Academic
- Manager

➢ **DIVERSIFY YOUR TEAM AND LISTEN**

CHAPTER 3:

PREPARING A PROJECT

OR

REFORM

➤ WHO ASKED FOR THIS? WHY ARE YOU THERE? WHAT PROBLEM NEEDS TO BE SOLVED?

➤ WHAT DO THE STAKEHOLDERS SAY?

➤ BEWARE THE CARTELS

➤ COORDINATE WITH OTHER FINANCING PARTNERS – THAT'S HARD!

➤ YOUR TEAM

• Lawyer, Surveyor, Geospatial & IT, Social Scientist

• Others as needed

➤ VISION, GOALS, COMPONENTS, ETC. LEADING TO THE PAD

CHAPTER 4:

IMPLEMENTING THE PROJECT OR REFORM

THE 9 C'S

1. **C**hampion

2. **C**orruption

3. **C**ustomer

4. **C**omputing

5. **C**onsultants

6. **C**adastral Survey

7. **C**ommunications

8. **C**apacity Development

9. **C**ontinual Adaptation

Simple, **C**heap, **A**ccessible, **R**eliable, **F**ast

CHAPTER 5:

PROJECT MANAGEMENT AND INSTITUTIONAL DEVELOPMENT

- ➢ PROJECT OWNERSHIP

- ➢ RISK ASSESSMENTS

- ➢ MONITORING AND EVALUATION

- ➢ SUSTAINABILITY

- ➢ CUSTOMER FOCUS

- ➢ SINGLE AGENCIES

- ➢ SELF-FUNDING/ RUNNING AS A BUSINESS

CHAPTER 6:

LEGAL FRAMEWORK

Homework: Do your due diligence in advance of your first visit to a country. Find, read and assess all the relevant laws.

Review the constitution, codes, land legislation and laws relating to land administration, such as privacy, e-communications, archiving and gender.

Get a local lawyer to help. Local knowledge will not only make the review and drafting processes quicker, it will save you from embarrassment. A local sociologist might also be helpful.

Try to work with what you have at first, while at the same time working on substantial reforms (if they are necessary) that will take time to be considered and adopted.

There are plenty of materials around on how to deal with legal issues and draft laws well.

CHAPTER 6:

LEGAL FRAMEWORK

Don't forget the transitional and consequential provisions in a law. Transitioning from one system or approach to another can often throw up serious problems and loss of legal and/or economic rights.

Reality check the draft with people who know how the system works or should work.

Try to draft the regulations in parallel with the new law or amendments so that nothing is missed and you do not lose valuable time.

Expect up to three iterations of the law to be adopted before it takes a final form. It is very rare for laws on major reforms to get everything right at first.

There is no single best way to do something, so have an open mind. Just because you do something in a particular way in your country does not mean it is the best or the most appropriate way to do it in another country.

CHAPTER 7

BOUNDARIES AND THE CADASTRAL SURVEY

➢ **Primary purpose to relocate a boundary when disputed**; when new owners want to know; and to protect against land-grabbing or invasion.

➢ **A wall, a hedge, monuments or descriptions** are usually enough for the owners

➢ **New South Wales "Legal Aspects of Boundary Survey"** give precedents as follows"

    1. Natural Boundaries

    2. Monumented lines

    3. Old occupation that is long undisputed

    4. Abuttals

    5. Statements of length, bearing and direction

CHAPTER 7

BOUNDARIES AND THE CADASTRAL SURVEY

Mass systematic registration requires a different methodology to the 'one-off' individual survey because of time and cost constraints:

➢ **1960's** onwards using aerial photography;

➢ **1970'S** onwards EDM and Total Stations as well;

➢ **1990's** onwards GPS and Satellite images;

➢ **21st Century** Drones and very high accuracy satellite imagery

What next??

Question: Why do we still need licensed cadastral surveyors when measurements are now so easy?

Answer is in the book!
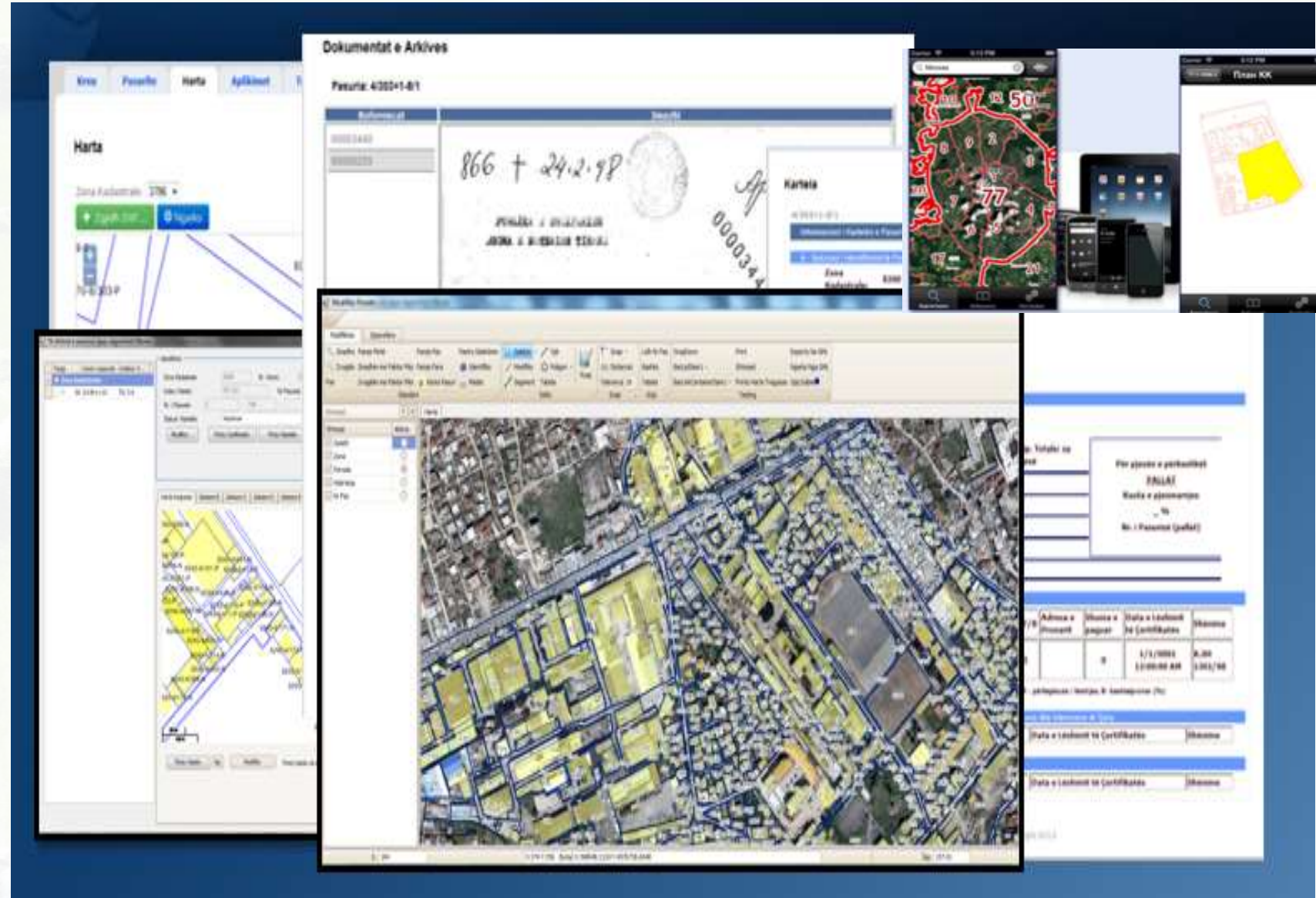
IT SYSTEMS FOR CADASTRE AND PROPERTY REGISTRATION

IT IS JUST A TOOL – LIKE A PEN! SERICES ARE IMPORTANT!!

WORLD BANK INVESTED

$ 1,6 BILLION IN ECA

LAND PROJECTS

DURING THE LAST 25 YEARS

56% for ICT

The most complicated IT system does not always bring the change needed!

WHY IT IS SO DIFICULT?

CHAPTER 8:

IT SYSTEMS FOR

CADASTRE AND

PROPERTY REGISTRATION

KEY MESSAGES...

➤ **Political will is critical!**

➤ **Corruption and the IT**

➤ **Fit-For-Purpose - ONE SIZE DOES NOT FIT ALL!**

➤ **Step-by-Step approach - Think Big - Act Small**

➤ **ICT Strategy - institutional, methodological and technical issues, Investment Plan, KPIs and Risk management**

➤ **IT Project Management, contracts management and quality assurance**

Building a House	Building an IT System
Step-1: Preparation Conceptual Design; Detailed Design, Bill of Quantities;	**Step-1: Preparation** Conceptual Design/ICT Strategy Development; Detailed TS, cost/time estimation;
Step-2: Tendering/Contracting • Construction • Supervision of construction	**Step-2: Tendering/Contracting** • Construction • Supervision of construction
Step-3: Construction and Supervision	**Step-3: Development and Supervision**
Step- 4: Final Acceptance	**Step- 4: Final Acceptance**
Step-5: Warranty and Maintenance	**Step-5: Warranty and Maintenance**

CHAPTER 8:

IT SYSTEMS FOR

CADASTRE AND

PROPERTY REGISTRATION

…KEY MESSAGES

➢ Develop <u>sustainable business model</u> at the very early stage

➢ Adopt a **national data model, based on LADM - ISO 19152:2012**

➢ Work on **data quality and data digitization** in parallel with the system development

➢ **Start with key subsystems and plan interoperability** with other systems

➢ Plan **IT training** <u>together</u> with legal and procedural training

➢ Pay attention on **cybersecurity, personal data protection, intellectual property rights**

➢ Plan **System Reporting** to monitor the staff and offices performance, monitor the property market, generate gender and youth disaggregated data

➢ **New Technologies** – What value they can bring? What you can do better? Can you afford them? Is it sustainable?

CHAPTER 9:

LAND INFORMATION SERVICES

DELIVERING EFFECTIVE LAND ADMINISTRATION SERVICES TO CUSTOMERS IS NOT THE END OF THE JOURNEY

Need to integrate Land Administration information into the wider geospatial information infrastructure to create a more comprehensive Land Information Service (LIS)

➢ **The Context of LIS**

➢ **Origins of LIS**

➢ **LIS Drivers**

➢ **Experiences in Implementing LIS**

- ❑ **LIS Governance Arrangements**
- ❑ **LIS Fuel – Unlocking Data to Improve Public Policy**
- ❑ **Sharing Data**
- ❑ **Key registers Underlying LIS**
- ❑ **Building Partnerships**
- ❑ **Think Beyond Data to Services and Insights**
- ❑ **ICT Infrastructure**
- ❑ **How to Finance a LIS**
- ❑ **Value Proposition**
- ❑ **Determine Current State of Key Stakeholders**
- ❑ **Capacity Development**

KEY MESSAGES

CHAPTER 9:

LAND INFORMATION SERVICES

DATA

➢ Adopt the Fit-For-Purpose approach to data and launch a Minimum Viable Product that can be improved over time

➢ A culture of data sharing and trust amongst stakeholders doesn't always come naturally

KEY REGISTERS

➢ The introduction of interoperable 'Key Registers' (individuals, businesses, real property, buildings, addresses….) delivers significant benefits, e.g. Denmark

➢ Needs robust business case (see UN-GGIM IGIF)

PARTNERSHIPS

➢ Collaboration and partnerships across different levels of government and the private sector are a key success factor

➢ Think beyond data to services and insights

CAPACITY DEVELOPMENT

➢ Open data and associated capacity development will deliver innovation and significant benefits - South Korea's successful management of the Covid-19 crisis

You can't change the world, but you can change that little bit of the world that you are in contact with. If others do the same, then together we can change the world.

Joe Parker, Lecturer, Borehamwood
College of Higher Education, 1975

HARD TALKS
OPEN Q&A AND DISCUSSION

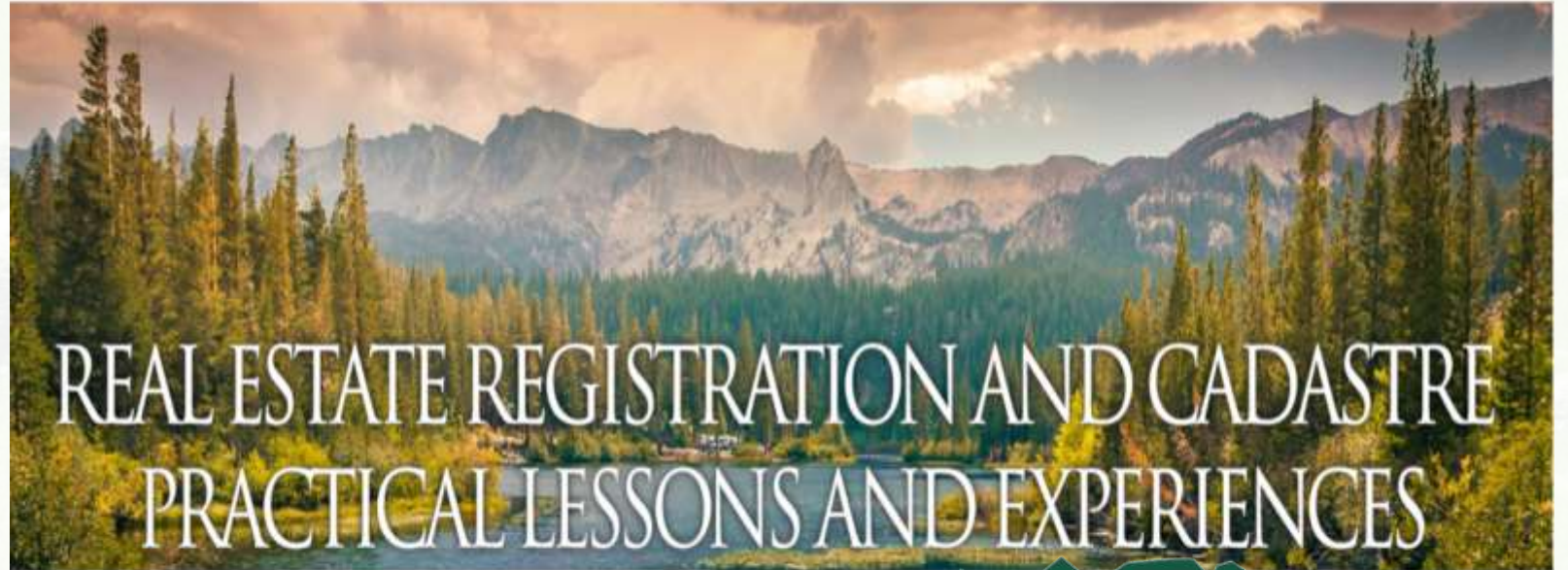**MODERATOR: KATE FAIRLIE**

ANSWERING THE HARD QUESTIONS:

GAVIN ADLINGTON

RUMYANA TONCHOVSKA

ROBIN MCLAREN

REAL ESTATE REGISTRATION AND CADASTRE
PRACTICAL LESSONS AND EXPERIENCES