



FRAMEWORK FOR EFFECTIVE LAND ADMINISTRATION (FELA)

UN-GGIM AND

UN-GGIM EXPERT GROUP LAND ADMINISTRATION AND MANAGEMENT (EG LAM)

[HTTPS://GGIM.UN.ORG/](https://ggim.un.org/)



UN-GGIM – EG LAM

- Implementation of the Framework for Effective Land Administration (FELA)
- Strengthening of integrated geospatial information management and its arrangements, leadership, resources and capacities
- Integration of terrestrial, maritime, built and cadastral domains
- Etc.



FRAMEWORK FOR EFFECTIVE LAND ADMINISTRATION

Framework for Effective Land Administration

Framework for Effective Land Administration

A reference for developing, reforming, renewing, strengthening, modernizing, and monitoring land administration

E/C.20/2020/29/Add.2

The United Nations Committee of Experts on Global Geospatial Information Management (UNGIGM) as the apex intergovernmental body seeks to play the lead role in setting the agenda for global geospatial information management and to promote its use to address key global challenges. UNGIGM is the forum to raise and coordinate among Member States, and between Member States, international organizations and stakeholders.



Secretariat for the United Nations Committee of Experts on Global Geospatial Information Management
Global Geospatial Information Management Section
Statistics Division
Department of Economic and Social Affairs
United Nations

Framework for Effective Land Administration

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E/C.20/2020/29/Add.2

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UN-GGIM

United Nations Committee of Experts on
Global Geospatial Information Management

Expert Group on
Land Administration and Management

Positioning geospatial information to address global challenges

ggim.un.org

Anchored by nine Strategic Pathways, the Integrated Geospatial Information Framework is a mechanism for articulating and demonstrating national leadership in geospatial information, and the capacity to take positive steps

Governance and Institutions	Policy and Legal	Financial
Data	Innovation	Standards
Partnerships	Capacity and Education	Communication and Engagement

Framework for Effective Land Administration

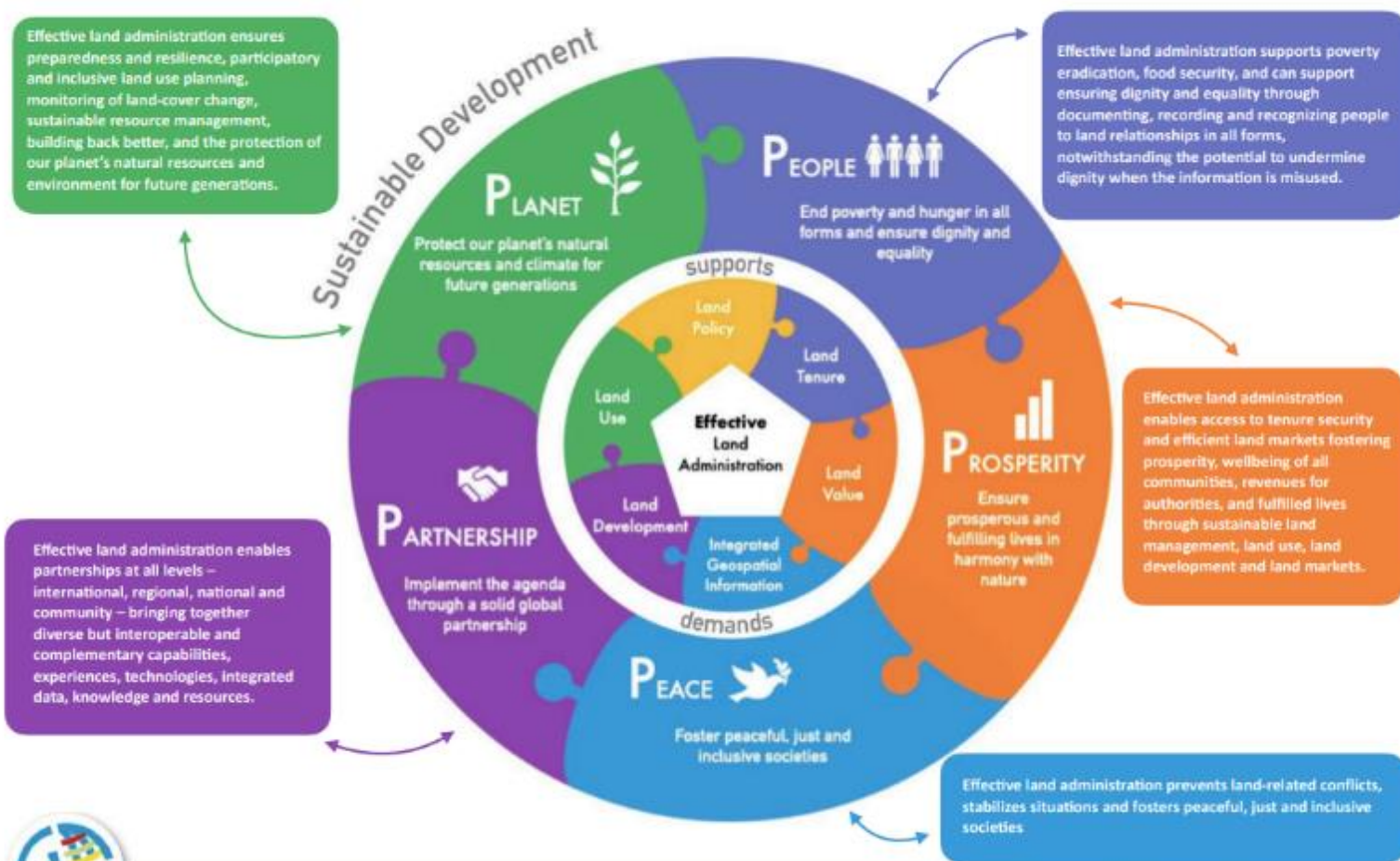
Drivers of change



FELA with its nine pathways seeks to provide the reference and guidance for Member States when establishing, strengthening, coordinating and monitoring their land administration nationally or sub-nationally. FELA aligns directly with the overarching and strategic United Nations Integrated Geospatial Information Framework (UN-IGIF), implements the UN-IGIF for the land sector. The nine pathways of FELA provide a mechanism towards effective leadership, advocacy, mobilization and actions to effectively document, record and recognize people to land relationships in all forms for the wellbeing of society, environment and economy.

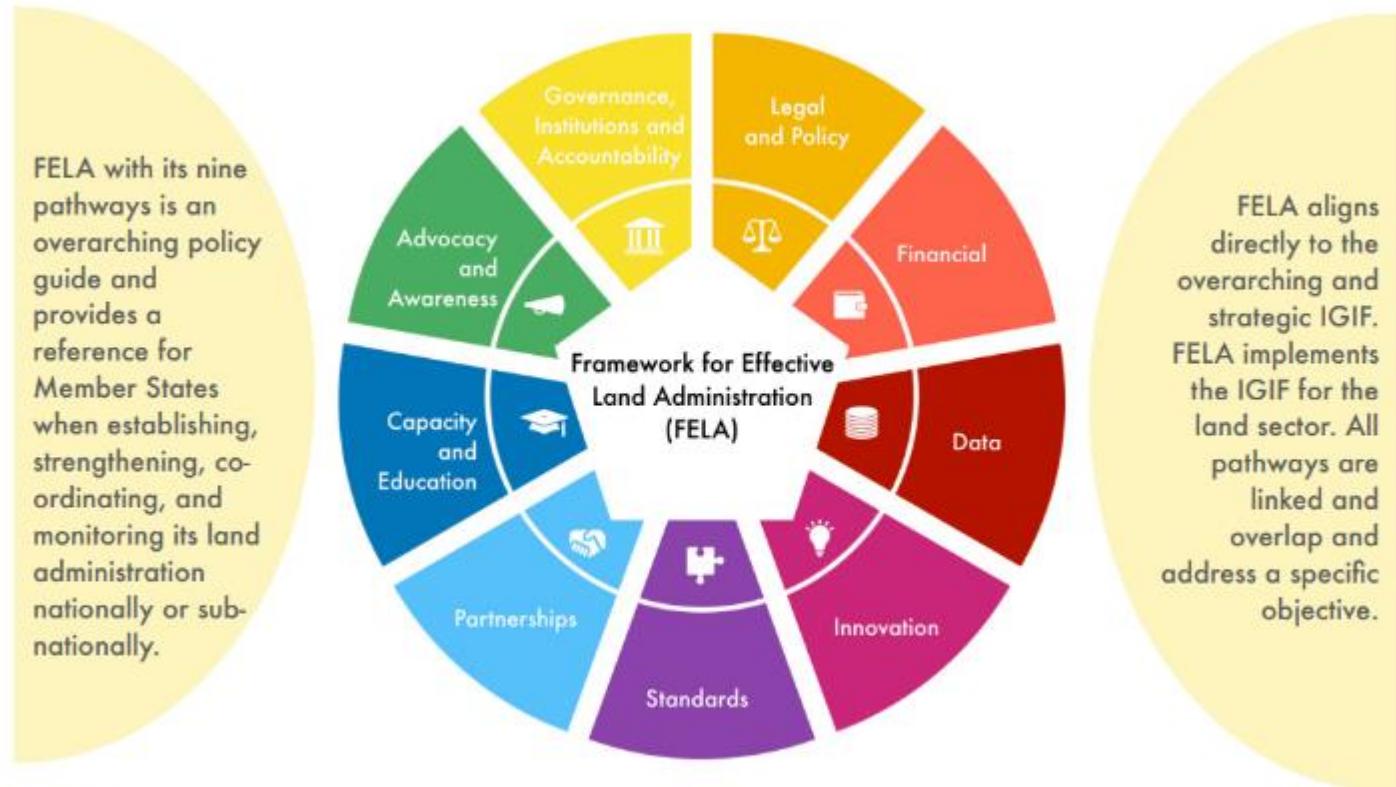


Framework for Effective Land Administration



WHAT ARE THE FELA STRATEGIC PATHWAYS?

Framework for Effective Land Administration





Expert Group on Land Administration and Management (EG – LAM)

- was endorsed in August 2015
- Currently Chile and Singapore appointed as co-chairs

Objectives

- Lead at the policy level;
- Encourage the use of geospatial information tools and systems.

Functions

- Provide a forum for global experts;
- Propose work plans to address governance, data management, institutional and technology adoption and sustainability issues;
- Undertake work that contributes to the Sustainable Development Goals;

Current members





Members of EG – LAM

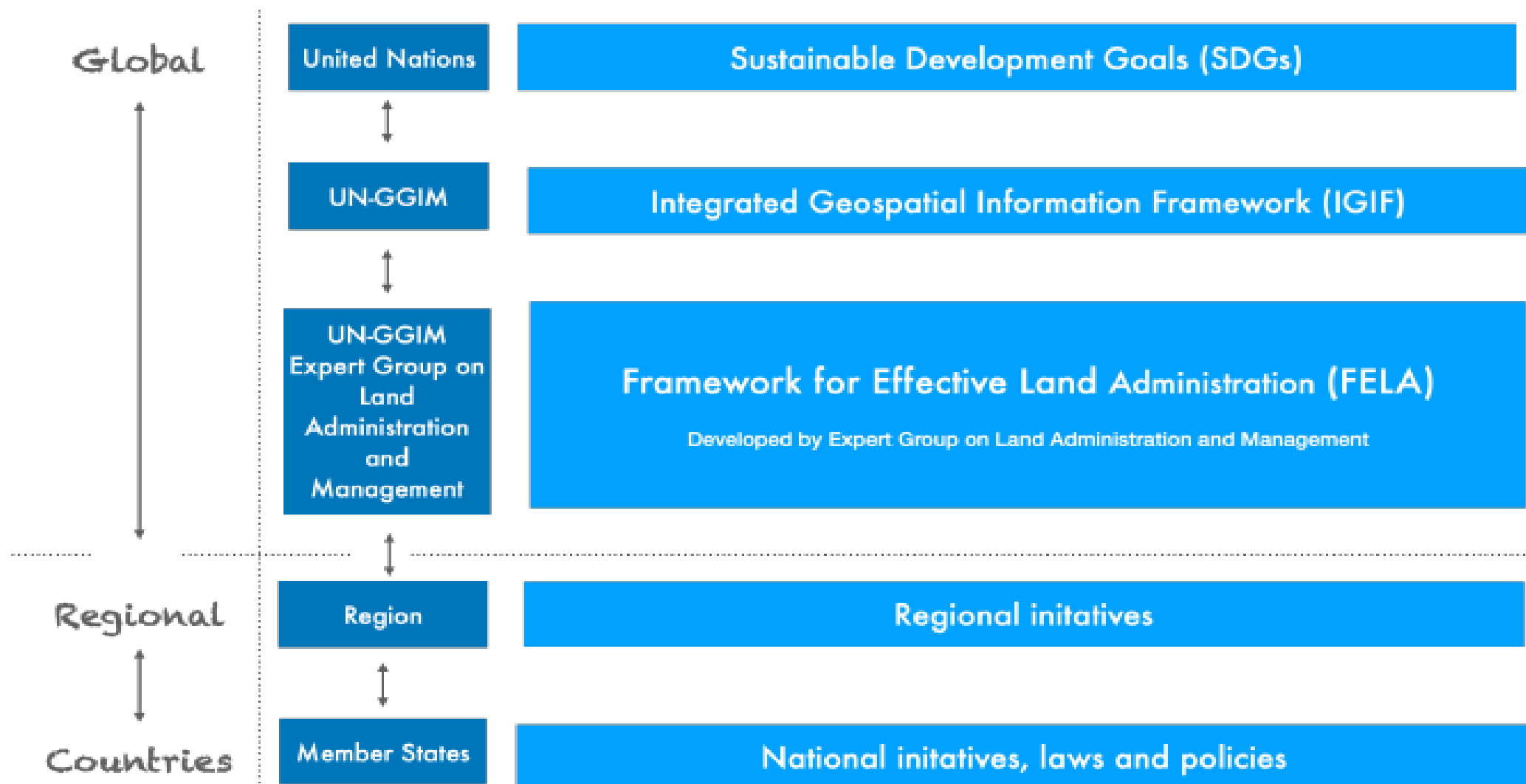
	Member States		Member States		Professional Bodies
1	Barbados	15	Mexico	1	IHO
2	Belgium	16	Morocco	2	FAO
3	Burkina Faso	17	Netherlands	3	UNECE-WPLA
4	Canada	18	Norway	4	UN-Habitat/GLTN
5	Chile	19	Philippines	5	World Bank
6	China	20	Saudi Arabia (Kingdom of)	6	Standards Development Organisation
7	Egypt	21	Singapore		UN Network
8	Finland	22	Spain	7	UN-GGIM: Geospatial Societies
9	Germany	23	Sri Lanka	8	UN-GGIM: Academic Network
10	Guyana	24	Suriname	9	UN-GGIM: Private Sector Network
11	India	25	Sweden		
12	Korea (Republic of)	26	Tonga (Kingdom of)		
13	Kuwait	27	United Arab Emirates		
14	Lesotho	28	United Kingdom		





Implementing the Framework for Effective Land Administration

Sustainable development demands effective land administration





PRINCIPAL WORK

Implementing the FELA at the national level and in collaboration with regional committees functional groups and international organizations

Regional Committee of UN-GGIM for Asia and the Pacific (UN-GGIM-AP)



Resolution of Working Group 2 – Cadastre and Land Management

- Recognizing the importance of the strategic work plan 2023-2035 of the Expert Group on Land Administration and Management (EG- LAM);
- Implementing the Framework for Effective Land Administration (FELA) at the national level and in collaboration with regional committees, functional groups and international organizations;
- Encourage member States to engage in the Framework for Effective Land Administration, especially by translating it in their own languages and practically implementing it, leverage the UN-IGIF Implementation Guide, and work with the UN-GGIM Expert Group on Land Administration and Management;

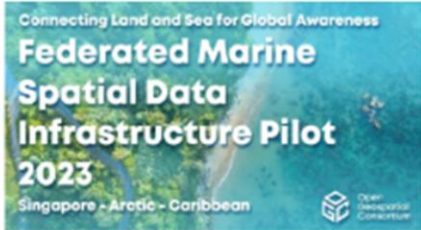


Very far away of cadastre (local)



and international organisations

Collaboration with Open Geospatial Consortium (OGC) and National Mapping and Cadastral Agencies



Main Objective:
Demonstrating interoperability between land and marine data that is necessary to understand coastal environments and land-sea interactions.



- Sponsors:**
- Maritime and Port Authority of Singapore (MPA)
 - National Oceanic and Atmospheric Administration (NOAA)
 - Natural Resources Canada (NRCan)
 - Singapore Land Authority (SLA)
 - UK Hydrographic Office (UKHO)

Pilot website:
<https://www.ogc.org/initiatives/fmsd4/>

Engineering report:
[ogc.ogc.org/fmsd4/](https://www.ogc.org/fmsd4/)

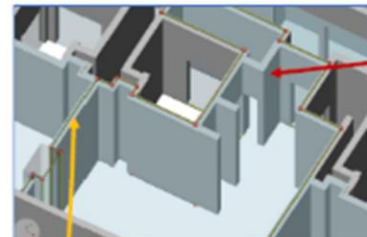
ISO Land Administration Domain Model (LADM) Community



LADM v2 Part 6: Implementation Aspects

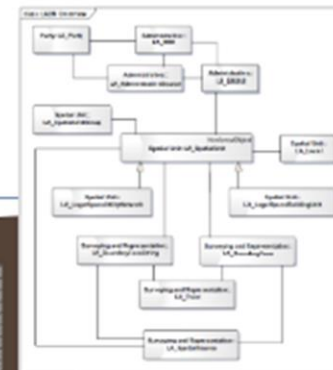
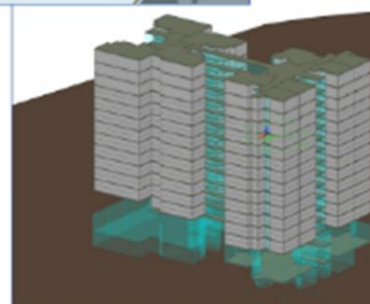
- OGC SWG Land Administration standard components:
 1. Methodology for developing a country profile
 2. Technical model / encodings (JSON, XML, INTERLIS, RDF, IFC, ...)
 3. Management and maintenance of semantically rich code list values (SKOS)
 4. Procedures / workflows (land registry, marine georegulation, valuation information, spatial plan information)
- OGC SWG LA standard(s) will become ISO LADM part 6
- ISO TC211 standards become CEN TC287 standards by parallel voting (Vienna agreement)

Integrating Built Environment and Cadastre



BIM

Strata Ownership Boundaries



1. Design vs. Imaginary Ownership Boundaries
2. Physical vs. Imaginary Ownership Boundaries
3. Design vs. Physical

«featureType»
Spatial Unit::LA_LegalSpaceBuildingUnit

+ extPhysicalBuildingUnitID: ExtPhysicalBuildingUnit [0..1]
+ type: LA_BuildingUnitType [0..1]

UN HABITAT

FOR A BETTER URBAN FUTURE



GLTN

GLOBAL LAND TOOL NETWORK

FIG Working Group 7.1 – Framework for Effective Land Administration (FELA)



Chair(s):

Amalia Velasco, together with Eva María Unger and Carmen Femenia

Objectives:

- Develop a FIG guide on FELA implementation a national level.
- Study of the main problems encountered by national land administration organizations in implementing FELA principles.
- Examples and analysis of national cases:
- Develop a recommendations list for FIG members in application of FELA principles



International Office for Cadaster and Land Records
OICRF is a permanent institution in FIG



Kadaster is hosting OICRF since the start in 1958



A repository for FELA



FIG - Com7
WORKING GROUP **FELA**



FIG Commission 7 Annual Meeting, Sevilla, Spain - by Eva-Maria Unger and Didier Sagashya

Can PCC and EG CLR KEN contribute?

Can PCC and EG CLR KEN contribute?

With FELA now being adopted, there is a great opportunity to disseminate amongst members and to jointly work on its implementation at country level.

For example

Netherlands is working with many countries
And with ISO-LADM; FIG, EuroSR etc...



Sweden is working on marine-land cadastre relationships

Spain can work with Latin American countries

Indonesia



© DAKS TO BINA SARANA

Indonesia: Improving modern land administration

Kelantan supports the Indonesian National Land Agency, representing the Ministry of Agrarian Affairs and Spatial Land Planning (ATR/BPN) with institutional and technical change. This is needed to deliver a modern land registration system in Indonesia by 2024.

In this way, Indonesia is moving towards a land administration system that meets the social, economic and environmental needs. The agency has been undertaking continuous improvement initiatives, particularly relating to increasing map coverage and digitisation over recent decades.

Table 1. Digital Transformation opportunities and challenges

Pathway	Opportunities and Challenges
Governance, Institutions and Accountability	<ul style="list-style-type: none"> • Vision for ATR/BPN digital transformation that is holistic • Digital transformation champions at multiple levels • Alignment of digital strategies with ATR/BPN and with external stakeholders
Law and Policy	<ul style="list-style-type: none"> • Legislative and regulatory harmonisation • Assessment of a positive system of land registration • Enacting workable, enforceable, and an adequately resourced law • Sustainable business model post-2025
Finance	<ul style="list-style-type: none"> • Government business enterprise model exploration • Audit and assessment of PPP service models • Performance metrics inclusion around benefits realisation and SDGs
Data	<ul style="list-style-type: none"> • Vision for data governance across ATR/BPN, post-2025 • R&D audit and review on national and land registration data • Fast-tracking mapping 120M parcels by 2025 (keep going!) • Developing and implementing better quality assurance standards • Enacting a robust federated database infrastructure to be developed
Innovation	<ul style="list-style-type: none"> • Formalised innovation bench making program across ATR/BPN • Incentive schemes at all levels • Formalise R&D collaboration across sector • Digital divide audit
Standards	<ul style="list-style-type: none"> • Audit governance of standards in ATR/BPN • Assess range of technology and data outcomes in terms good practices • Development of both internal and industry-wide certification protocols • Fostering of a community of practice to support awareness raising
Partnerships	<ul style="list-style-type: none"> • Reviewing partnership and establishing new partnership ecosystem (NGOs) • Assess PE 18/2015 with regards to land sector PPPs • PALAR (i.e. FPFLA) review on embekokhokan and PTLR • Designing a business model for registration
Capacity and Education	<ul style="list-style-type: none"> • Plan for keeping capacity in ATR/BPN • Fast-tracking skill areas for maintaining the data • Support professional bodies and encourage self-accreditation
Communications and Awareness	<ul style="list-style-type: none"> • Revisit key stakeholder lists and related communications plans • Enact World Bank project communications institutionalisation • Enacting the custom monitoring and evaluation mechanisms

Chad

FEPA Pathway	Opportunities and Challenges in Chad	
Governance, Institutions and Accountability	<ul style="list-style-type: none"> • Political stability is needed for a holistic transformation towards a sustainable land administration; • Unclear mandates and changing leadership in ministerial posts; 	<ul style="list-style-type: none"> • Political will is existing and can be leveraged • Networks amongst different ministries established
Law and Policy	<ul style="list-style-type: none"> • Absence of Land Policy causing lengthy processes; • Legal framework to be in place for pilotage's complete role out in Chad; 	<ul style="list-style-type: none"> • In examples on successful land policies can support developments; • Development of policy can consider lessons learnt from case study;
Finance	<ul style="list-style-type: none"> • Sustainable business model for land administration is not existing; • Donor support in the future is likely; 	<ul style="list-style-type: none"> • Governmental interest to explore Public Private Partnerships is given;
Data	<ul style="list-style-type: none"> • Available data is segmented and patchy; • Lack of vision for data governance and geospatial data strategy across ministries; 	<ul style="list-style-type: none"> • Developing and implementing data quality and open data standards; • Establishment of a robust IT infrastructure;
Innovation	<ul style="list-style-type: none"> • Combination of different methodologies to address the various land realities on the ground envisioned; 	<ul style="list-style-type: none"> • Innovation limitations based on hardware, electricity, connectivity, etc
Standards	<ul style="list-style-type: none"> • Lack of data standardisation programs; • Capacity around standards; 	
Partnerships	<ul style="list-style-type: none"> • Donor-working groups coordination; • Extension of the network of partners (NGOs, CSOs, private sector etc.); 	
Capacity and Education	<ul style="list-style-type: none"> • Capacity and level of literacy in specific areas; • Capacity development programs will be needed for pilotage; 	<ul style="list-style-type: none"> • Enthusiasm of the local team; eagerness to learn; • Agreement on the need to involve the local team in the implementation of future initiatives;
Communication and Awareness	<ul style="list-style-type: none"> • Communication and awareness programs need to consider differences • Monitoring and evaluation indicators may vary for the pilots 	<ul style="list-style-type: none"> • Gender responsive approach and particular attention to vulnerable Awareness at all ministerial/governmental level that community involvement is imperative;

Mexico

CONSIDERATIONS OF THE LAW REGARDING THE FEPA



INEGI and SEDATU did a review in order to guarantee that the FEPA precepts are considered in the Law

SEDATU
SECRETARÍA DE DESARROLLO AGRARIO, TERRITORIAL Y URBANO



INEGI

INEGI

Spain can work with Latin American countries

In all Ibero-America, there is an urgent need to complete the cadastre, modernize it (create GIS) and integrate it into a territorial administration system



But in this order, let's not put the cart before the horse



A lot of resources and energy are devoted to developing very elaborate and complex policies, and yet no investment is made in the basics: in developing and maintaining a complete and up-to-date cadastral digital information system



Software developers have adopted the principles of FELA FIG

9 paths of FELA gives LAC clues and tools

- Need to finish as soon as possible:
- Fit for purpose
- Consider who has to do what and give them means and procedures



Digitalization and Standardization tools.
Creation of GIS
In order to integrate the data... now very disaggregated and share them



According to UN-Habitat, 113.4 million people in Latin America live in **informal settlements.**

1 in 4 people living in urban areas

Social Tenure Domain Model

Proposal STDM 'Valuation of Unregistered Land'

Based on discussion during LADM Workshop 11th October 2023

Participants @ event:
Abdullah Kara, Chris Body, Dubravka Sladic, Eva-Maria Unger, Jaap Zevenbergen, Peter van Oosterom

Participants @ e-mail discussions:
Abdullah Kara, Chrit Lemmen, Eva-Maria Unger, Jaap Zevenbergen, James Kavanagh, Kwabena Asiana, Peter van Oosterom



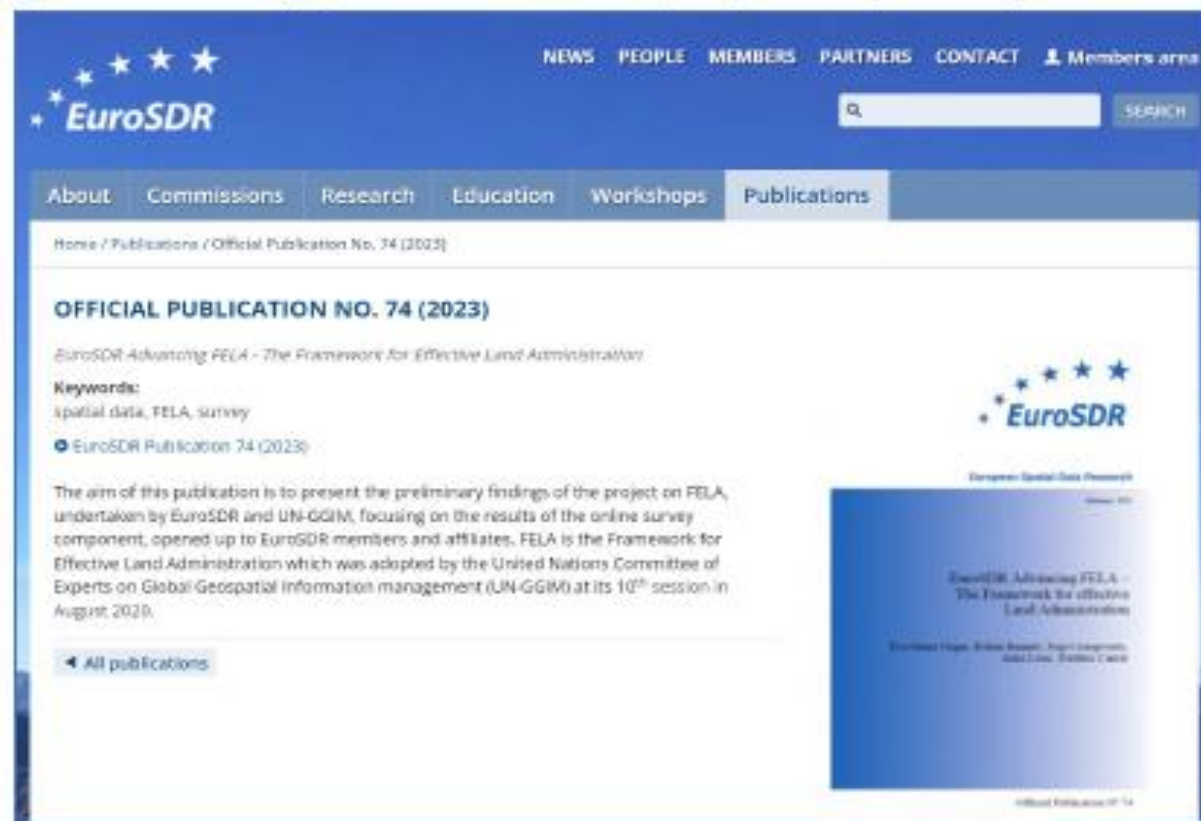
VALUATION OF UNREGISTERED LAND
A PRACTICE MANUAL

Working with EuroSDR

Project Advancing “FELA – Framework for Effective Land Administration” to raise awareness of the merits and benefits of effective land administration and to share knowledge and experience leveraging FELA



(Eva-Maria Unger, Rohan Bennett, Joep Cromptvoets)



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OFFICIAL PUBLICATION NO. 74 (2023)

EuroSDR Advancing FELA - The Framework for Effective Land Administration

Keywords:
spatial data, FELA, survey

EuroSDR Publication 74 (2023)

The aim of this publication is to present the preliminary findings of the project on FELA, undertaken by EuroSDR and UN-GGIM, focusing on the results of the online survey component, opened up to EuroSDR members and affiliates. FELA is the Framework for Effective Land Administration which was adopted by the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) at its 10th session in August 2023.

All publications

EuroSDR Advancing FELA - The Framework for Effective Land Administration



“FELA-FRAMEWORK FOR EFFECTIVE LAND ADMINISTRATION”

An EuroSDR action with the support of UN EG-LAM and UN-GGIM Europe

A **first** online **survey** (focused on 3 **Governance** pathways of the FELA: Institutions and Accountability - Legal and Policy – Financial) ran in Spring 2022

A joint EuroSDR/FIG session at last FIG Congress (September 12th 2022): *Framework for Effective Land Administration – NMCA Good Practices and Further Developments*

A **second** online **survey** (focused on 3 **Technology** pathways of the FELA: Data, Innovations and Standards) ran in Spring 2024 - *33 answers received from 23 European countries*

Planned - Last and **third survey** on **People** (Autumn 2024).

To schedule a workshop (beginning of 2025) – Together with PCC/EuroGeographics?