Fifth Meeting of the Expert Group on Land Administration and Management (EG-LAM)

Report on EG-LAM’s Activities, Progress and Accomplishment
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;
## Members of EG – LAM

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Framework for Effective Land Administration (FELA)

A reference for developing, renewing, reforming, strengthening, modernizing, or monitoring land administration, cognizant of national priorities and circumstances.

Endorsed in August 2020 and now it is at Implementation phase

**Vision**

Secured people to land relationships in all forms for the wellbeing of partnerships, planet, prosperity and peace.

**Mission**

To provide leadership, coordination and internationally recognized standards, and support responsible innovation and partnerships, for effective land administration to realise sustainable social, environmental and economic development.

Focus Area 1: Leadership and Advocacy in Effective Land Administration

Scope 1: Promote and raise awareness of the merits and benefits of effective land administration;
Scope 2: Encourage, promote and develop guidance for Member States to implement FELA at country level.

Focus Area 2: Promote and encourage the implementation of the FELA at the country level

Scope 3: Review, elaborate and adapt the UN-IGIF Implementation Guide and related implementation resources to further guide and support the implementation of FELA according to national circumstances and needs;
Scope 4: Encourage volunteered translation of the FELA into languages other than English to support raising of awareness and promote better understanding;
Scope 5: Facilitate sharing and exchange of knowledge, information, experiences, and practices, including relevant use cases and implementation examples.

Focus Area 3: Integration of terrestrial, maritime, built and cadastral domains

Scope 6: Gain better understanding through cooperative project and activities.

Focus Area 4: Innovation in land administration and management to strengthen resilience and sustainability

Scope 7: Promote effective land administration within an ‘ecosystem’ or ‘interconnected domain’;
Scope 8: Address rights, restrictions and responsibilities associated with land;
Scope 9: Address digital and mobile access to land information including cybersecurity and data security mechanisms to protect vital land information;
Scope 10: Address the integration of information related to land tenure, land value, land development, land use and land use change.

Focus Area 5: Engagement and collaboration including to further anchor the FELA in the UN-GGIM programme of Work

Scope 11: Identify, agree and work on cooperative projects including with UN-GGIM regional committees, functional groups, thematic networks and relevant stakeholders.

Scope 1: Promote and raise awareness of the merits and benefits of effective land administration;
Scope 2: Encourage, promote and develop guidance for Member States to implement FELA at country level.

Focus Area 3: Integration of terrestrial, maritime, built and cadastral domains

Scope 6: Gain better understanding through cooperative project and activities.

Workplan’s Progress Overview

1. Leadership and Advocacy in Effective Land Administration
   - Report of UNGGIM Annual Meetings at UNHQ (ongoing)
   - Chair and co-organise 5th EG-LAM Meeting and International Seminar in Mexico (ongoing)
   - Chair and organise 3 Virtual Meetings per year (completed in 2023, ongoing in 2024)
   - Organised International Seminar on Effective Land Administration in Singapore (completed)

2. Promote and encourage the implementation of the FELA at the country level
   - Working Group 7.1 on FELA in FIG Commission 7 with Spain, Netherlands, Latin Americas (Led by Spain) (ongoing)
   - EuroSDR on FELA Implementation (Led by the Netherlands) (ongoing)
   - Chaired a Session on FELA implementation at FIG Working Week 2023 (completed)

3. Integration of terrestrial, maritime, built and cadastral domains
   - Crafting policy paper on integrating land and sea with MPA under IHO-Singapore Lab (ongoing)
   - Co-lead COTS project on harmonization of datums (led by PUB) (ongoing)
   - Conducted technical discussion on integration of various domains in SLA (completed)
   - OGC Pilot on Integrating Land and Sea (completed)

4. Innovation in land administration and management to strengthen resilience and sustainability
   - Establishment of near-shore permanent ground reference control points with MPA (ongoing)
   - Setting up a framework to monitor vertical land motion (funding proposal submitted, ongoing)

5. Engagement and collaboration including to further anchor the FELA in the UNGGIM programme of Work
   - Collaborate with GGCE on integrating FELA in Geodesy domain (ongoing)
   - Anchor FELA in the works with OGC and IHO (ongoing)
   - Contributed a section on land admin data in policy paper by WG on Policy and Legal Framework (completed)
2.1.4 Effective land administration to achieve authoritativeness

Land administration is a societal activity both shaping and shaped by governance, institutions, and associated with accountability and authority. Conventionally, land administration is mandated through national or state land laws, and underpinning land policy frameworks. Systems have developed with supportive policies, legislation, safeguards, accountability mechanisms, and protections around data and privacy. This strong legal backing often differentiates land data from other types of geospatial information. Effective land administration is crucial to ensure the authoritativeness of the land data to be used for the people and by the people. The nine pathways, in particular, Pathway II: Policy and Legal and Pathway IV: Data, of the Framework for Effective Land Administration (FELA) affirmed the data relating to land tenure, land use, land value, and land development are fundamental geospatial data themes within any jurisdiction. This data informs on the ‘how’, the ‘what’, the ‘who’, the ‘when’ and the ‘where’ of land tenure, land use, land value, and land development.

Land data laws and directives may have prescribed collection, ordering, and storage methods. However, it is important to recognize the dualist and pluralist inherent to some land administration systems, particularly in developing contexts. Parallel systems may have evolved over time and parts may be closely linked to the cultural and customary ways of life, which may not always be catered for by statutory law. The customs, traditions and land tenure systems of indigenous peoples are equally to be recognized alongside statutory law. Similarly, in coastal zones, multiple legal regimes may coexist.

Data relating to land tenure, land use, land value, and land development are fundamental geospatial data themes within any jurisdiction, underpins the processes and transactions that enable changes to the status of land tenure, land use and land value. Defining requirements of land data are the need for appropriate spatial accuracy, the requirement to be temporally up-to-date, and to be backed up, assured and potentially insured by an authority. Without these elements, the data is quickly undermined in terms of societal use and relevance. Availability, accessibility, and interoperability of the land data are also necessities for effective land administration. ISO 19152 (Land Administration Domain Model) and IHO S-121 (Maritime Limits and Boundaries) provide starting points for creating these qualities.
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;
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 Crompvoets)

In total 21 countries participated
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.

Timeline:
- Mar 2023: Call for participation
- Apr 2023: Kick Off
- Implementation Period
- Sept 2023: Engineering Report and Demos Presentation
- Oct 2023: Completed

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/fmsdi4/
Engineering report: ogc.pages.ogc.org/FMSDI2023/
A Session on FELA @ FIG Working Week 2023 (Orlando, FL, USA)

FRAMWORK FOR EFFECTIVE LAND ADMINISTRATION (FELA) (T501110520)
Commission: 7 & UN-GGIM ED-LAM
Chair: Mr. Victor Khoo, Singapore
Rapporteur: Mr. Kean Huat Soon, Singapore

FELA was endorsed by UN-GGIM in August 2020. It seeks to demonstrate, in tangible ways, how land administration systems can directly support the 2030 Agenda and achievement of the SDGs. This session unpaces what has happened since 2020, in terms of FELA translations, country-level programs, and implementation tools.

Guiding Questions for discussions:
- Is the global agenda on track?
- What is the role of FELA?
- What is the role of FIG and UN-GGIM?

Kean Huat Soon and Victor Khoo (Singapore)
Implementing the Framework for Effective Land Administration (FELA): New Workplan and Developments (12061)
[abstract] [paper] [handouts] [video]

Mikael Lilje (Sweden)
The UN-GGIM Integrated Geospatial Information Framework and the status of the High-Level Group of the IGIF (11937)
[abstract] [paper] [handouts] [video]

Jean-Philippe Lestang (France)
Improved Land Management, a Key Factor for a Stable and Protective Social Economic Development (12041)
[abstract] [paper] [handouts] [video]

Charisse Griffith-Charles (Trinidad And Tobago)
Land Registration for Conquering New SDG Frontiers (12099)
[abstract] [paper] [handouts] [video]

Brandon Tourelotte, Katie Pickett (USA) and Kees de Zeeuw (Netherlands)
FELA-based Geospatial Knowledge Infrastructure (12127)
[abstract] [paper] [handouts] [video]

Eva-Maria Unger, Rohan Bennett (Netherlands), Mahamat Abdoulaye Malloum (Chad), Christele van den Berg (Netherlands), Claudia Stöcker (Germany), Kaspar Kundert (Rwanda), Dina Naguib (Egypt), Markus Koper (Germany), Divyand Kohli and Milla Koeve (Netherlands)
Fit-For-Purpose Land Administration and the Framework for Effective Land Administration in Chad (12242)
[abstract] [paper] [handouts] [video]
Chair(s):
Amalia Velasco, together with Eva María Unger and Carmen Femenia

Objectives:
• Develop a FIG guide on FELA implementation at 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
## Published LADM-based country profiles

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<th>Country/ Jurisdiction</th>
<th>References</th>
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<td>1</td>
<td>Benin</td>
<td>Makushe et al. (2020)</td>
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<tr>
<td>2</td>
<td>Brazil</td>
<td>(Fajnzylber et al., 2019; Das &amp; Bordes, 2013; Pardini et al., 2015)</td>
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<td>3</td>
<td>Cape Verde</td>
<td>Andrade et al. (2013)</td>
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<td>4</td>
<td>China</td>
<td>Guo et al. (2011); Zhou et al. (2015); Xu et al. (2019)</td>
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<td>5</td>
<td>Colombia</td>
<td>Amos et al. (2017); Merados et al. (2019); FAO (2020a)</td>
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<td>Croatia</td>
<td>Varis et al. (2017); Mudie et al. (2018)</td>
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<td>7</td>
<td>Cyprus</td>
<td>Els et al. (2013)</td>
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<td>8</td>
<td>Czech Republic</td>
<td>Janeiro and Sotnik (2017)</td>
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<td>9</td>
<td>Ethiopia</td>
<td>Bokhale et al. (2018)</td>
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<td>Greece</td>
<td>Pramodadas et al. (2016); Kalogjani et al. (2017)</td>
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<td>Honduras</td>
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<td>Israel</td>
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<td>Japan</td>
<td>(Lee et al., 2015; Kim, Hoon, 2017)</td>
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<td>16</td>
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<td>(Kasia et al., 2016; Kacurak et al., 2018)</td>
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<td>ISO (2012); Jessen et al. (2012); Lee et al. (2015)</td>
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<td>Zulkifli et al. (2019, 2014); Russell et al. (2018); Hamid and Hamon, 2019</td>
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<td>Mongolia</td>
<td>Barstow and et al. (2018)</td>
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<td>20</td>
<td>Montenegro</td>
<td>(Kost et al., 2013; Kost et al., 2015)</td>
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**Source:** Eftychia Kologianni, Karel Janečka, Mohsen Kalantari, Efi Dimopoulou, Jaroslav Bydloš, Aleksandra Radulović, Nikola Vulić, Dubravka Sladić, Miro Govedarica, Christina Lemmen, Peter van Oosterom. “Methodology for the development of LADM country profiles” In: Land Use Policy, Elsevier, 105(105380), pp. 1-12, 2021
Framework on Geospatial Domain Integration

• The paper covers terrestrial, maritime, built and cadastral domains

• To address the integration issues through the UN-IGIF 9 strategic pathways: governance, policy, financial, data, innovation, standards, partnership, capacity building and awareness

• The framework will include the following:
  a) Challenges
  b) Success Stories
  c) Proposed Solutions

• Seek to gather feedback and solutions from the international community and build consensus through the consultation process

Recently held at SLA a Technical Discussion on “Integration of Terrestrial, Maritime, Built and Cadastral Domains: Data, Processes and Systems”
Proposal on Domain Integration
Jointly developed by the co-chairs of the:
Working Group on Marine Geospatial Information (WG-MGI) and
Expert Group on Land Administration and Management (EG-LAM)

Sixth expert meeting (in-person) of the Working Group
05 Mar 2024
Integrating Built Environment and Cadastre

1. Design vs. Imaginary Ownership Boundaries
2. Physical vs. Imaginary Ownership Boundaries
3. Design vs. Physical
Centres of Excellence

• To explore general support and technical guidance on matters such as integrated geodetic system, long-term monitoring, digital twins, geospatial standardisation, capacity building
• To explore co-development of business cases for funding
Thank You
Fifth meeting of the Expert Group on Land Administration and Management and the International Seminar on “Effective Land Administration”, 8 – 11 April 2024, Aguascalientes, Mexico