

Advancing FELA – The Framework for Effective Land Administration

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Key words: UN-GGIM, FELA, Assessment, Land Management, Land Administration

SUMMARY

An important milestone for land administration globally arrived when the UN Committee of Experts on Global Geospatial Information Management (UN-GGIM) welcomed and adopted the Framework for Effective Land Administration (FELA) at its 10th session in 2020. This was an important accomplishment for the international land sector and land administration professionals globally. The adoption of the FELA by the various UN Member States is currently happening, and this marks an ideal moment to contribute to and advocate the FELA. For this reason, the UN-GGIM Expert Group on Land Administration and Management (EG LAM) and EuroSDR have initiated a small project to raise awareness of the merits and benefits of effective land administration, primarily through dialogue and survey of European National Mapping and Cadastral Agencies (NMCAs) on the use and implementation of FELA. The project also seeks to share knowledge and experience, leveraging from FELA as the overarching policy guidance. It aims to contribute to tailoring FELA, as a 'living document', cognizant of the changing and evolving landscapes and national circumstances. As such, it addresses issues, gaps and appropriate approaches, including access to basic datasets, to accelerate efforts in documenting, recording, and recognising people-to-land relationships in all forms. Finally, this collaboration allows for the leverage of synergies between relevant stakeholders (in particular the ones from the FIG community). The paper aims to present the main project finding to date.

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1. INTRODUCTION

An important and significant milestone for land administration globally arrived when the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) welcomed and adopted the Framework for Effective Land Administration (FELA) at its 10th session in 2020. This accomplishment for the international land sector and land administration professionals around the world can be leveraged for continued promotion and awareness-raising. The uptake of the FELA by the various UN Member States is currently happening, and this is an ideal moment to contribute and advocate for and contribute to the implementation of the FELA.

The United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) was established by a resolution of the Economic and Social Council of the United Nations (ECOSOC), E/RES/2011/24, in July 2011 and comprised all Member States of the United Nations. ECOSOC adopted another resolution in 2016 entitled "Strengthening institutional arrangements on geospatial information management" (E/RES/2016/27), which expands and strengthens the mandate of the Committee of Experts as the competent body on geospatial information consisting of government experts, reporting to ECOSOC on all matters relating to geography, geospatial information, and related topics. UN-GGIM's flagship policy guidance is the Integrated Geospatial Information Framework (or IGIF).

The UN-GGIM Expert Group on Land Administration and Management (EG-LAM) aims to address the challenge that a large percentage of humanity does not enjoy recognised and secured land and property rights. There is a need to accelerate efforts through the development of FELA (UN-GGIM, 2018). Inspired and aligned with IGIF, the FELA promotes the documentation, recording, and recognition of people-to-land relationships in all forms (Figure 1). The FELA further includes references to existing concepts, approaches, and mechanisms, such as the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests (VGGTs) in the Context of National Food Security (FAO, 2012), the continuum of land rights (UN-Habitat, 2008) and (Barry & Augustinus, 2015), and the Land Governance Assessment Framework (Deininger, et al., 2012). The framework also considers standardisation developments by international bodies such as the Land Administration Domain Model (LADM) (ISO, 2012) and defines a reference for the development, improvement and modernisation of national and regional LA and land information systems (LIS).



The Framework for Effective Land Administration (FELA)

Sustainable development demands effective land administration

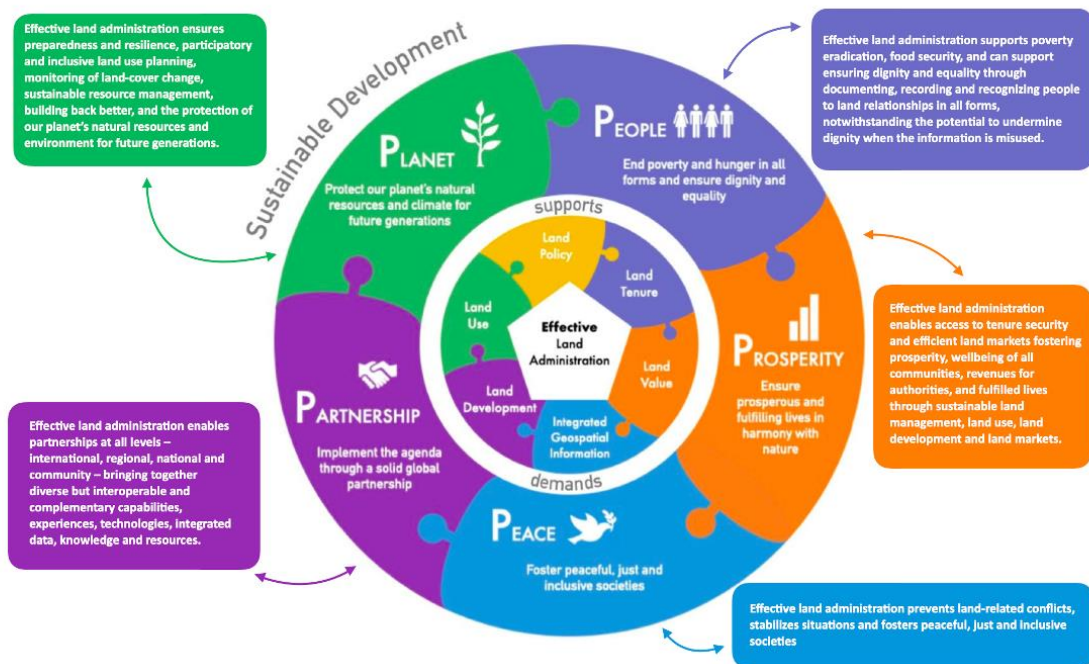


Figure 1. UN-GGIM FELA directly links land administration and management to the SDGs (UN-GGIM, 2020)

The EG-LAM holds Expert Group meetings and reports to the General Assembly. The EG-LAM is chaired by two Co-Chairs and comprises the Member States from all regions responsible for managing the activities between general assemblies.

EuroSDR (formerly OEEPE) is a European spatial data research network originally established by the International Treaty, as OEEPE, in 1953 in Paris in accordance with a recommendation passed by the Council of the Organisation for European Economic Co-operation. The spatial data research interests of European countries are represented through the membership in EuroSDR of national organisations from their production and research sectors. The result is a network of delegates from European Geographic Information organisations and research institutes, effectively and practically addressing Europe's spatial data research requirements. Collaborative research projects address the acquisition, management and delivery of spatial data and services, while international workshops and courses, in collaboration with related organisations, address key issues in a timely and focussed manner.

With the support of UN-GGIM Europe and the UN-GGIM Expert Group on Land Administration and Management (EG-LAM), EuroSDR initiated a small project in the summer of 2021 to raise awareness of the merits and benefits of effective land administration and to share knowledge and experience leveraging the FELA as the overarching policy guidance. In

addition, the project sought to support the FELA as a 'living document', cognizant of the changing and evolving social, economic, environmental, political, and technological landscapes and national circumstances. FELA addresses relevant issues, gaps, and appropriate approaches, including access to basic datasets, to accelerate efforts in documenting, recording, and recognising people-to-land relationships in all forms. Finally, the collaboration sought to leverage synergies among the national mapping and cadastral agencies (NMCAs), government agencies, universities, research institutes, and private companies.

The objectives were to be achieved through a combined approach:

- 1) FELA was to be widely shared and promoted via an event and print media associated with project activities;
- 2) An online survey was designed and completed to gain sector-wide insights;
- 3) In-depth key-informant interviews were conducted with relevant experts; and subsequent to the presentation of this paper,
- 4) A workshop is to be organised, of which the findings will serve as inputs for validation for the research findings;
- 5) A publication that includes the research findings will be published as an Official EuroSDR Publication (which is scientifically indexed) and made widely available as an Open Access publication – and various other formats; and
- 6) Knowledge transfer of the research findings will also happen via the organisation of an EduServ course.

Therefore, the aim of this paper is to present the preliminary findings of this collaborative work on FELA, undertaken by EuroSDR and UN-GGIM – specifically the results of the online survey (see item 2 in the previous paragraph). Following this introduction, the methods used are discussed in more detail. This includes information on the online survey conducted and also providing more background details on the part of the FELA framework. Partial results of the online survey are then presented, summarising the results of the participating countries in relation to the first three FELA pathways. Finally, a brief discussion and conclusion section highlights the key takeaways and next work steps.

2. METHODS

Inspired by the FIG Cadastre 2014 (Steudler, 2014) work of the mid-1990s and subsequent Cadastral Template surveys, the online survey approach used aimed to gain an overview of the different stages of awareness and uptake of the FELA by the Members of the EuroSDR and/or UN-GGIM Europe. This was done by converting the FELA framework into a series of questions addressing a selection of FELA strategic pathways (explained below). Due to time and resource constraints, not all pathways could be surveyed. Additionally, as this is the first survey of its kind relating to FELA, it also represents a sort of pilot activity. A set of questions was created for each FELA strategic pathway, allowing for a mix of quantitative and qualitative data to be collected. The questions were created based on insights provided through the development of the FELA, as well as the specific context and discussions during the various EG-LAM meetings. The survey, therefore, included both closed and open-ended questions. The selection of

participants was limited to European countries with an existing relationship with EuroSDR and/or FIG. Invites were sent via email between March and April 2022. In total 18 countries participated: Austria, Belgium, Bosnia & Herzegovina, Bulgaria, Cyprus, Czech Republic, England and Wales, Estonia, Finland, Germany, Italy, Latvia, Luxembourg, the Netherlands, Portugal, Scotland, Slovenia, and Switzerland. The participating countries represent all regions of Europe: Central and Eastern, Northern, Southern and Western Europe.

Before moving into presentation of results, it is good to know that FELA builds on existing definitions of land administration including land tenure, land value, land use and land development, and incorporates the concepts of land registry and cadastre. The FELA is primarily built, implemented, and realised through 9 pathways: i) Governance, Institutions and Accountability; ii) Law and Policy; iii) Finance; iv) Data (and Processes); v) Standards; vi) Innovation; vii) Partnerships; viii) Capacity and Education; ix) Communication and Awareness. However, as mentioned above, due to limitations on time and resources, and the fact that the work was considered pilot in nature, the online survey focused on only 3 of them – those reflecting the governance branch of the FELA: 1) Governance, Institutions and Accountability (mainly referring to accountable and transparent governance), 2) Policy and Legal (referring to inclusive and recognises all forms of tenure), and 3) Financial (referring to affordable with sustainable business models).

3. RESULTS

As already mentioned, the online survey focused on three pathways of the FELA. The results are presented in this structure. In each case, a reference to the specific FELA section is presented, followed by the relevant question and quantitative result, followed by additional qualitative information. Many of the additional comments from participating countries are reflected in the text.

3.1 Governance, Institutions and Accountability

Within FELA pathway 1 – Governance, Institutions and Accountability it is said, that '*For governance models, land administration is an essential aspect of broader land governance regimes, and includes all actors, processes, standards and resources involved in determining land tenure, land use, land value, and land development. Responsible land governance structures must be established – fitting the country context – with effective and efficient land institutions.*' UN-GGIM (2020). It also describes that land administration must be accountable and transparent. The FELA states: '*Land administration is a societal activity both shaping and shaped by governance, institutions, and associated with accountability. All SDGs focus on the enhancement and reform of governance, institutions and associated accountabilities.*' Like IGIF, FELA calls for clear governance models, leadership, institutional structures, and a clear value proposition. FELA calls for effective and efficient land institutions with leadership being centered upon transparency, accountability, inclusiveness, accessibility, participation, and gender responsiveness. Under FELA, a number of different land governance approaches are supported, which are those adhering to good governance principles. The questions posed in the

survey therefore revolved around the following: How land administration is governed, the leadership in the land administration sector, the number of organisations involved in land administration governance, and whether or not performance indicators are existing and linked to the 2030 Agenda of sustainable development.

Here, it is worth showcasing one of the questions which focused on the use of performance indicators within the sector, and, in particular, whether they are linked to the SDGs (Figure 2), and if data is kept up-to-date and publicly available. This question relates to the FELA's mention of value proposition: land administration actors should take a lead in developing and enforcing accountability and transparency in terms of procedures, metrics and indicators. Doing so justifies and strengthens mandate, roles, and responsibilities, amongst the community and society more broadly. From the data, the SDGs are still not prevalent in many performance metrics for land administration sectors (only 18.8%), although, this does mean that a small amount has already adopted the SDGs in the five years since their introduction.

Does the land administration sector in your jurisdiction use performance indicators linked to the SDGs? Is data on these measures up-to-date and publicly available?

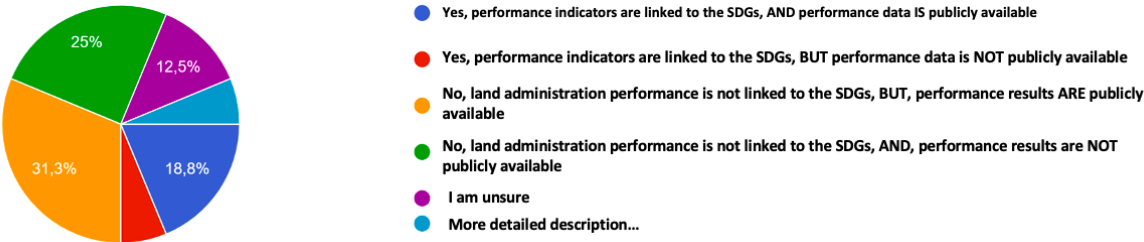


Figure 2. Performance indicators in land administration

3.2 Policy and Law

Within FELA pathway 2 – Policy and Law it is said, that: *'The creation and existence of sound policy and legal frameworks relating to land tenure, land use, land value, and land development is fundamental. These should enable the creation and ensure the existence of effective land administration that is available, accessible, inclusive, participative, gender- and minority-responsive, transparent, and supports the exchange, application and management of land information to all. These frameworks should also define the degree of responsibility of various legal institutions for dispute settlement.'* UN-GGIM (2020).

In general, most respondents suggest the jurisdiction in question does have a clear, concise, and integrated land policy. This was perhaps above what was expected, given the often historical divergence in difference aspects of land management and governance in many jurisdictions. Further questions focused on identifying legally related accountability mechanisms for land administration agencies, and on laws that support sharing and management of land data.

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Here, it is worth showcasing one of the questions which focused on laws which support the sharing, exchange, application and management of land data and information for people and stakeholder groups (Figure 3). This question relates to the FELA's mention of the promotion of inter-sectoral collaboration and land information sharing.

Do laws support the sharing, exchange, application and management of land data and information for people and stakeholder groups?

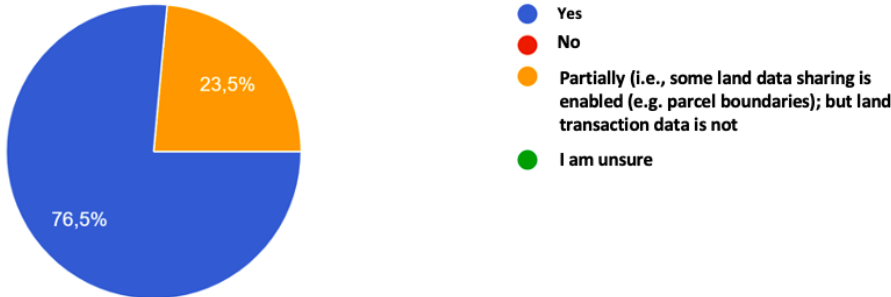


Figure 3. Laws supporting sharing of land data

All countries have (partly) established regulations for promoting the sharing, exchange, application and management of land data/information enabling the creation and ensuring a legal foundation for effective land administration (See Figure 3).

3.2 Finance

Within FELA pathway 3 – Finance – it is said, that: *'The financial strategic pathway stresses the necessity for sound, accountable and transparent financial governance, management and arrangements, helps to focus on the importance of understanding the implementation costs and the required ongoing financial commitment necessary for maintenance. It is important to promote the achievement of a sustainable economy, and economic justice through land administration that can be sustained and maintained on an ongoing basis. Land administration is one of the limited examples in the geospatial domain, that in addition to supporting administration and governance activities, have historically acted as a revenue generation tool for governments, be it through duties, tax, or charging for information. Therefore, the identification or development of land administration business models is essential.'* UN-GGIM (2020). Therefore, the questions addressed in the survey were centered around: how the land administration sector sustain itself financially, if the land administration sector offer financial opportunity and support for non-public entities, how improvements and innovations are financed, and whether or not benefits realisation is used.

At this point, we would like to showcase one of the questions which focused on how the land administration sector sustain itself financially. This question relates to the FELA's mention of the achievement of a sustainable economy so that land administration can be sustained and maintained on an ongoing basis. From the variety of responses (Figure 3), it is clear that there

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are different methods to sustain services and maintain data. While the majority presents a combination of taxes and/or levies, user payment and market-based approaches separate state budgets or allocated budgets are also still dominantly presented.

How does the land administration sector sustain itself financially in your jurisdiction?



Figure 4. Financial sustainability

4. CONCLUSION

This work is part of a broader activity/collaboration between UNGGIM and EuroSDR. It is positive to see this kind of uptake and awareness of the FELA taking place. This first survey has shown that it is possible to transform the FELA into an assessment tool that does not have an evaluation character, but is mainly an awareness raising tool. The general results show some homogeneity in 2 pathways' governance, institutions and accountability' and' policy and law', but more diversity in the finance pathway.

The survey has some limitations, as researchers still need to conduct a more detailed analysis of the qualitative feedback and assess its alignment with the quantitative results. It should also be noted that this was the first time the questionnaire was run, with little intervention and explanation to the participants, so there could be some misinterpretation of some questions. Nevertheless, this is something that needs to be investigated. It may also mean that the appropriateness and usefulness of some of the questions needs to be reviewed.

Through the participation and interest generated by this initiative, we can conclude that FELA can be seen as an opportunity for partnerships and regional cooperation. In addition, the study confirms that there is no one size fits all approach in the land administration domain. Therefore, FELA can be seen as a maturity agnostic framework that promotes continuous improvement of services to citizens. It supports the assessment of the current situation and guides towards the target situation through trend analysis and the already mentioned continuous improvement.

REFERENCES

Advancing FELA – The Framework for Effective Land Administration (11446)
 Eva-Maria Unger (Netherlands), Joep Crompvoets (Belgium), Rohan Bennett (Netherlands), Frédéric Cantat (France) and Anka Lisec (Slovenia)

Barry, M. & Augustinus, C., 2015. Property metaphors, property theory and communicating the continuum of land rights. Washington, US.

Deininger, K., Selod, H. & Burns, A., 2012. The Land Governance Assessment Framework. Washington, D.C.: The World Bank.

FAO, 2012. Voluntary Guidelines on the responsible Governance of tenure of land, fisheries and forests in the Context of national food security. Rome, Italy: Food and Agriculture Organization of the United Nations.

ISO, 2012. ISO 19152:2012 Geographic Information - Land Administration Domain Model (LADM), Edition 1. 118p. Geneva, Switzerland. [Online] Available at: <https://www.iso.org/standard/51206.html> [Accessed 20 February 2018].

Stuedler, D. (Ed.). (2014). *CADASTRE 2014 and Beyond* (p. 84). International Federation of Surveyors (FIG).

UN-GGIM, 2018. 8th Session. Committee of Experts on Global Geospatial Information Management. Report on the eight session (1-3 August 2018). Economic and Social Council Official Records, 2018. Supplement No. 26. [Online] Available at: <http://ggim.un.org/meetings/GGIM-committee/8th-Session/documents/GGIM8-report-e.pdf> [Accessed 24 12 2018].

UN-GGIM (2020) Framework for Effective Land Administration, August 2020, New York, United States. Available online: https://ggim.un.org/meetings/GGIM-committee/10th-Session/documents/E-C.20-2020-29-Add_2-Framework-for-Effective-Land-Administration.pdf (accessed on 10 May 2021).

UN-HABITAT, 2008. Secure land rights for all, Nairobi, Kenya: UN-HABITAT.

BIOGRAPHICAL NOTES

Eva-Maria Unger works with the international arm of the Netherlands national mapping, land registration and cadastral agency (Kadaster International) as a Senior Land Administration Advisor. She gives advice, assessments, designs and oversees the conceptualisation and implementation of affordable and effective land administration systems. She is responsible for developing deeper relationships with international donors, partner countries and other consultants and worked with UN-GGIM, UN Habitat, GLTN, World Bank, The Dutch Ministry of Foreign Affairs, EU, and private sector companies. Dr. Unger completed a secondment with UN-GGIM while still being employed by the Kadaster. She holds a MSc. in Geodesy and Geoinformation, and a PhD in Land Administration. As a researcher Eva-Maria is involved in teaching at KU Leuven and University of Twente. Eva-Maria was chair of the FIG Young

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Surveyors Network from 2014-2018 dedicated to the STDM Training of Trainers Program and initiator of the Volunteer Community Surveyors Program (VCSP) supporting the GLTN's county-level implementation plans and programmes.

Rohan Bennett is in-coming Chair of FIG Commission 7 (2023-26). He holds degrees in Geomatic Engineering, Information Systems, and a PhD in Land Administration, from the University of Melbourne. He has held academic and professional consulting roles with the University of Melbourne, University of Twente, Swinburne University of Technology and Kadaster Netherlands. He is widely published in the areas of land administration, cadastre and land management, with specific focus areas being application of emerging technologies and developing contexts. Recent country-level experiences include engagements with Armenia Cadastre Committee, Indonesia's ATR/BPN, NLA in Rwanda, and key government agencies in Chad.

Joep Cromptvoets is full professor and research manager at KU Leuven Public Governance Institute (Belgium) holding the chair on 'information management in the public sector', and secretary-general of EuroSDR – European spatial data research network linking national mapping agencies with research institutes, universities and private companies for the purpose of applied research in the domain of geospatial information management. He wrote numerous publications related to geo-information science, public information management, e-governance, and digital transformation in the public sector. Recent country-level experiences include engagements with Serbian RGA, St. Lucia DPP, and Senegalese GICC.

Anka Lisec is associate professor in geodesy and geoinformatics at the Faculty of Civil and Geodetic Engineering, University of Ljubljana, and is head of the Department of Geodetic Engineering (2021–2025). She is chair of the EuroSDR Commission 5 (Knowledge transfer) and the member of EALD board (European Academy of Land Use and Development). Her research interests are focused on geospatial data and information for spatial decision support, in particular in relation to land administration and land management, spatial development.

Frédéric Cantat is chair of the EuroSDR Commission 4 (Business Models and Operations). He is graduated from ENSG-Geomatique (engineering degree), and passed one complete year studying at ESSEC Business school. He got many positions at IGN France always related to users: BtoB, BtoG and even BtoC. He is currently Transformation coordinators since 2019 and his former position was Head of marketing and surveys during 10 years. He is co-facilitator of the work group called « Public service information & Open data » of the GFII (a non profitable French association gathering public data providers and private re-users or editors).

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