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**EuroSDR Advancing FELA III –
The Framework for effective
Land Administration**

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EUROSDR ADVANCING FELA III – THE FRAMEWORK FOR
EFFECTIVE LAND ADMINISTRATION

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Abstract

Land administration systems play a crucial role in managing land and have evolved over time to meet societal needs. Global initiatives, including the UN-GGIMs Framework for Effective Land Administration (FELA), aim to modernise these systems to support sustainable development. FELA emphasises that land administration must be effective, interoperable, and inclusive, aligning with global standards and practices to accelerate efforts to document and manage land relationships effectively. In response to these goals, EuroSDR and UN-GGIM Europe conducted a survey across 16 organisations from 14 European countries to assess the adoption of FELA's pathways: Partnerships, Capacity and Education, and Advocacy and Awareness. In previous survey rounds, the other FELA pathways were assessed.

The survey reveals a technically robust and internationally cooperative, but strategically unbalanced land administration sector. Partnership activities are maturing, supported by strong technical competence and long-standing regional networks.

However, capacity development is evolving at two speeds: while some countries cultivate interdisciplinary training and innovation, others rely heavily on traditional technical capacity building and lack structured continuing professional development or entrepreneurship support. The most significant gap is in communication. Many organisations are technically competent but relatively weak in communication. They often struggle to reach non-technical audiences effectively and rarely assess the impact of their outreach efforts. In addition, they do not appear to make targeted efforts to engage vulnerable groups or address socio-environmental challenges.

The findings suggest that advancing FELA Pathways VIII (Capacity and Education) and IX (Advocacy and Awareness) will be essential to balance the strong achievements already present in Pathway VII - Partnerships.

This publication should be read alongside the two previously published surveys to provide a holistic view across all nine FELA strategic pathways and an understanding of the current state of FELA implementation in the participating countries.

We acknowledge all the respondents in their efforts to fill in the survey questionnaire.

Key words: UNGGIM, FELA, Assessment, Land Administration, Capacity, Partnership, Awareness

1 INTRODUCTION

Land administration systems have been developed over decades, or even centuries, for various purposes. In recent decades, it has been demonstrated that a multipurpose land administration system offers many advantages to society and can significantly contribute to sustainable development and prosperity (Williamson et al., 2010). Given the vital role of land administration for society and new technological perspectives, land administration systems have become the topic of numerous international scientific and professional discussions and initiatives (Barry & Augustinus, 2015; Deininger et al., 2012; Steudler, 2014; UN-GGIM, 2020; FIG, 2024). To support the development of contemporary land administration systems globally, the United Nations (UN) Committee of Experts on Global Geospatial Information Management (UN-GGIM) adopted the Framework for Effective Land Administration FELA (UN-GGIM, 2020). This document highlights the importance of an effective land administration system for achieving the Sustainable Development Goals (SDGs) from Agenda 2030 (UN, 2015). FELA is aligned with the UN-GGIM's policy guidance, namely the Integrated Geospatial Information Framework IGIF (UN-GGIM, 2018, Unger et al. 2020). FELA also includes references to the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests (VGGTs) in the Context of National Food Security (FAO, 2012), and the ISO standard on Land Administration Domain Model (ISO, 2012 and ISO, 2024). Although the approaches to developing and implementing contemporary land administration systems differ among countries.

Currently, the FELA is being adopted by various UN Member States, presenting an opportunity to contribute to, and advocate for 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 online surveys of European National Mapping and Cadastral Agencies (NMCAs) on the use and implementation of FELA (see also Unger et al., 2023 and 2024). Due to time and resource constraints, and as this was a comprehensive pilot, the survey was divided into three parts. This report presents preliminary findings from the EuroSDR and UN-GGIM Europe collaboration on FELA, focusing on the third survey covering the people-related pathways: Partnerships, Capacity and Education, and Advocacy and Awareness. Following this introduction, the methods used are presented in more detail. This includes information on the online survey conducted and background information on the FELA. Partial results of the online survey are then presented, summarising the responses of the participating countries in relation to the three FELA pathways mentioned above. Finally, a brief discussion and conclusion section highlights the key takeaways and next steps.

2 METHODS

The FELA (UN-GGIM, 2020), with its nine pathways, provides reference and guidance for United Nations Member States in establishing, strengthening, coordinating, and monitoring their land administration at national or sub-national levels. The nine pathways of the FELA offer a mechanism for effective leadership, advocacy, mobilisation, and actions to document, record and recognise people-to-land relationships in all forms for the well-being of society, the environment, and the economy. Partially inspired by the FIG Cadastre 2014 work from the mid-1990s and subsequent Cadastral Template surveys (see also Steudler, 2014), the applied online survey approach aimed to gain an overview of the different stages of awareness and uptake of FELA by the members of EuroSDR and/or UN-GGIM Europe – the European branch of UN-GGIM. Accordingly, the FELA framework was transformed into a series of questions addressing selected FELA strategic pathways. For this research, the nine pathways have been thematically divided into three subgroups (see Figure 1).



Figure 1: Focus Areas (Governance, Technology, People) of UN-GGIM Framework for Effective Land Administration (FELA) (Source: Unger et al., 2022)

Part 1 – Governance - focused on the following pathways (the results were already presented in the preliminary report – Unger et al., 2022):

- Governance, Institutions and Accountability;
- Law and Policy;
- Finance;

Part 2 – Technology - focused on the following pathways (the results were already presented in the preliminary report – Morscher-Unger et al., 2024):

- Data;
- Standards;
- Innovation;

Part 3 – People - focused on the following pathways (the results are presented in detail in this report; the first outcomes were presented in Paris in June 2025 during the International Workshop on Challenges in Relation to the UN Framework for Effective Land Administration (FELA), see Workshop report Cantat et al., 2025):

- Partnerships;
- Capacity and Education;
- Advocacy and Awareness.

A set of questions was created for each group of FELA strategic pathways, allowing for the collection of both quantitative and qualitative data. The questions were informed by lessons learned during the development of FELA and by the specific themes, challenges, and priorities discussed in UN-GGIM EG-LAM meetings. The survey included both closed and open-ended questions to provide a more comprehensive view. The closed-ended questions contained multiple-choice answer options, offering respondents a range of answers to choose from. The open-ended questions provided the opportunity to gain deeper insights at a country-specific level. The survey was initially trialled with at least two land agencies and converted to an online form.

The preliminary results related to the governance branch of the FELA, namely (i) Governance, Institutions and Accountability (mainly referring to accountable and transparent governance), (ii) Policy and Legal (referring to inclusivity and recognition of all forms of tenure), and (iii) Financial (referring to affordability with sustainable business models), were already presented (Unger et al., 2023). The second online survey, conducted using the EUSurvey tool and presented in the previous report, focused on three technology-related FELA pathways: (iv) Data, (v) Standards, and (vi) Innovation. The third and hence final online survey, presented in this report, focused on the three people-related FELA pathways: (vii) Partnerships, (viii) Capacity and Education, and (ix) Advocacy and Awareness. The results are presented using the same structure as in the previous reports (Unger et al., 2023; Morscher-Unger et al., 2024).

The selection of participants was limited to European countries that have a relationship to EuroSDR and UN-GGIM Europe. Invitations were sent by email between February and April 2025. In total, 14 countries participated: Austria, Croatia, Cyprus, Estonia, France, Germany, Ireland, Norway, Poland, Romania, Slovenia, Sweden, Switzerland, and the Netherlands. These countries represent all regions of Europe. All survey participants across Europe had in-depth knowledge of land administration, cadastre, land registration or policy-making, and were generally employed in government, national mapping and cadastral authorities, land registries, or recognised academic and research institutions in the land administration domain.

The multiple-choice responses were summarised using descriptive statistical tools. Responses to open-ended questions were analysed using qualitative methods, such as identifying themes and potential outlier perspectives.

3 RESULTS

As previously mentioned, the online survey focused on three of the nine, so-called “People” pathways, of the FELA: Partnerships, Capacity and Education, and Advocacy and Awareness. Each section presents a reference to the specific FELA pathway, followed by the corresponding survey questions, the quantitative result, and some additional qualitative information. Additionally, comments from participating countries and professionals are included throughout the text.

3.1 FELA Pathway VII: Partnerships

Within the FELA pathway VII – Partnerships, the requirement is described as strengthening partnerships to support collaboration. Partnerships build knowledge and experience, as well as people, technological and financial capacity, to enhance adequate land administration arrangements. They bring together different perspectives that stimulate creativity and innovation, driving the achievement of common goals. Effective land administration should enable partnerships at all levels – from international to community level (UN-GGIM, 2020). FELA states (UN-GGIM, 2020): *‘Regardless of the context, partnerships form the basis for effective land administration. This includes the creation and harnessing of strong relations within and between the public sector, private sector (via PPPs), academia, Civil Society Organisations, Not-For-Profit Organisations, Non-Governmental Organisations, professional bodies, coordinating organisations, and international agencies and societies. Land administration stakeholders are found in each of these sectors. The types and nature of partnership depend on the country context.’*





Like the United Nations Integrated Geospatial Information Framework (UN-IGIF), FELA calls for collaboration across sectors, promoting a culture of establishing trusted partnerships, strategic alliances and shared values. For effective land administration, partnerships must be inclusive, transparent, cross-sectoral and trusted.

The questions regarding Partnerships are hence focusing on:

- Principle of subsidiarity,
- International collaboration,
- Cross-sector and interdisciplinary cooperation.

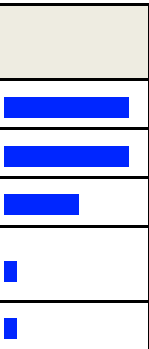





The first question addresses the principle of subsidiarity: *‘How is the principle of subsidiarity applied in managing land administration data and processes in your country?’* A centralised approach to land administration, with limited local involvement, is evident (Table 1). Survey results on the application of the subsidiarity principle in land administration show that, in most European countries surveyed, land data and administrative processes remain primarily under the control of central authorities. Some respondents reported partial decentralisation, where local entities manage certain land administration tasks or aspects of data under central oversight, but only a small fraction indicated full subsidiarity, with complete control delegated to local authorities. **This highlights a centralised approach to land administration, with limited local involvement.** The survey’s insights into subsidiarity reflect how partnerships are operationalised – or limited – within different governance structures. In countries where central authorities retain tight control, opportunities for local engagement and partnership may be constrained, affecting the ability to respond flexibly to local needs.

Table 1: Partnerships: Principle of subsidiarity

| <i>How is the principle of subsidiarity applied in managing land administration data and processes in your country?</i> | | Answers | Ratio |
|---|---|---------|--------|
| Not applied – Central authorities manage all aspects of land data, there is no local jurisdiction for land administration processes. |  | 6 | 37.5% |
| Partially applied – Central authorities manage all aspects of land data, but there is a local jurisdiction for land administration processes. |  | 3 | 18.75% |
| Partially applied – Local entities manage some aspects of land data and land administration processes under central oversight. |  | 6 | 37.5% |
| Fully applied – Local entities have full control and responsibility for land data management and land administration processes. |  | 1 | 6.25% |
| Not sure/Not applicable. | | 0 | 0% |

The second question focused on cross-country and international knowledge transfer. The results show strong engagement by the participating countries: **62.5% of respondents reported involvement in international initiatives, and the same percentage indicated participation at the EU level.** This involvement demonstrates a high degree of alignment with broader global and regional frameworks, such as the UN-GGIM IGIF and FELA, and the INSPIRE Directive, which emphasise interoperability, harmonisation, and capacity building across borders. Additionally, 37.5% reported activity at the cross-border or regional level, indicating collaboration with neighbouring countries or within a sub-regional context (Table 2). **This demonstrates that international engagement is not limited to high-level multilateral organisations but also includes more practical, geographically targeted partnerships. This level of engagement suggests that most European countries are not operating in isolation but are actively contributing to and learning from international best practices and standards in land administration.**

Table 2: Partnerships: Assessment of cross-country/international knowledge transfer

| <i>Is your country involved in cross-country/international knowledge transfer or standardisation initiatives in land administration?</i> |  | Answers | Ratio |
|--|---|---------|-------|
| Yes, at the international level. |  | 10 | 62.5% |
| Yes, at the EU level. |  | 10 | 62.5% |
| Yes, at the cross/border, regional level. |  | 6 | 37.5% |
| No, there is no particular cross-country/international knowledge transfer. |  | 1 | 6.25% |
| Not sure. |  | 1 | 6.25% |

The follow-up question seeks to specify cross-country knowledge transfer initiatives, including examples (Table 3). The most frequently reported form of cooperation is participation in international, EU, or regional associations and expert meetings, cited by 87.5% of respondents. **This indicates that European land administration bodies are deeply embedded in institutional networks that facilitate continuous exchange of knowledge, standards, and best practices.** Examples include involvement in UN-GGIM Europe, EuroGeographics, FIG Commission 7 (Cadastre and Land Management), and the Permanent Committee on Cadastre in the European Union (PCC). These forums support policy alignment, capacity building, and peer learning.


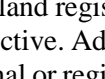
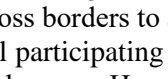

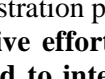
56.25% of countries reported participation in multinational symposiums, further demonstrating a culture of ongoing dialogue and dissemination of innovative practices. These events often serve as focal points for aligning technical and legal practices and are instrumental in addressing global challenges in land governance. Exchange programmes for land professionals, reported by 37.5%, represent a more hands-on, experiential form of knowledge transfer. These initiatives enable professionals to observe practices in different jurisdictions, directly compare systems, and bring back practical improvements to their home institutions.

Notably, 31.25% of countries reported implementing common knowledge-transfer platforms with neighbouring states, indicating a regional approach to harmonising practices and systems. A prominent example is the Regional Conference on Cadastre and Spatial Data Infrastructure, initiated by the Croatian State Geodetic Administration (SGA). This platform has operated for over 17 years and fosters knowledge exchange among land professionals from Western Balkan countries (Albania, Bosnia and Herzegovina, Croatia, Montenegro, Kosovo, Slovenia, Serbia). It is a notable case of sustained regional cooperation and capacity building.

25% of respondents have participated in joint R&D projects, resulting in harmonised or streamlined land registration processes. **This reflects a growing emphasis on innovation through collaboration, often**

supported by European research programmes or donor-funded initiatives. Examples include participation in INSPIRE Directive implementation, the European Land Registry Association (ELRA) Interoperability MOdel for LAnd Registers (IMOLA) project, and development projects such as the Advanced Training Courses in Land Administration in Colombia, led by European academic institutions.

Table 3: Partnerships: Specify cross-country knowledge transfer

| <i>If your answer was yes, please specify forms of successful cross-country knowledge transfer initiatives in which your country is involved in land administration.</i> | | Answers | Ratio |
|--|---|---------|--------|
| International/cross-border joint research and development project(s) resulting in a standardised or streamlined land registration process. |  | 4 | 25% |
| Involvement in exchange programme(s) for land professionals to share best practices. |  | 6 | 37.5% |
| International/EU/regional associations/meetings of land administration experts. |  | 14 | 87.5% |
| Implementation of a common knowledge-transfer platform(s) across neighbouring countries. |  | 5 | 31.25% |
| Multinational symposiums on land administration. |  | 9 | 56.25% |
| No successful cross-country knowledge transfer initiatives. | | 0 | 0% |
| Not sure. | | 0 | 0% |

The following two questions relate to multi or cross-sectoral cooperation: *‘Is there any multi/cross-sectoral cooperation (involving different sectors, ministries, agencies) that has enhanced standardised practice or improved interoperability in land administration in your country?’* (Table 4), and *‘Do examples of successful multi/cross-sectoral cooperation (involving different sectors, ministries, agencies) exist that have enhanced standardised practice or improved interoperability in land administration in your country?’* (Table 5).

The results (Table 4) show that over half of the participating countries (56.25%) report successful national-level multi-sectoral cooperation, contributing to improvements in standardisation or interoperability. This suggests that collaboration within countries across various institutions, such as cadastral authorities, land registries, ministries of finance, and environmental agencies, is both common and considered productive. Additionally, 31.25% of respondents report cooperation at the EU level, and 25% at the international or regional (cross-border) level, indicating that land administration stakeholders are also engaging across borders to align systems and practices. Notably, no respondents selected ‘No’, demonstrating that all participating countries either have some form of cross-sector cooperation or are at least aware of its relevance. However, 18.75% marked ‘Not sure’, highlighting the potential need for better documentation, communication, and coordination of existing efforts. **The most cited form of cooperation is national joint development projects (43.75%),** which have led to standardised or streamlined land registration processes involving multiple sectors. This suggests a **strong capability to organise collaborative efforts that improve land administration** within each country. **37.5% of respondents referred to international or EU-funded joint development projects, also aimed at streamlining and harmonising processes across sectors.** This reflects the continued importance of **external funding and international frameworks in supporting reform and innovation.** Only 18.75% mentioned international or EU-funded interdisciplinary programmes, and 12.5% reported nationally funded interdisciplinary innovation projects. These lower figures may suggest that while

development-focused collaboration is common, more holistic, research-oriented or innovation-driven programmes are less prevalent or less widely known.

Only one country reported private sector involvement, suggesting that public-private partnerships (PPPs) in land administration are relatively rare or underreported, despite encouragement from frameworks such as FELA and IGIF. 25% selected 'Not sure', reinforcing the impression from Table 4 that awareness of specific cross-sectoral initiatives is not consistent across all institutions or countries.

Table 4: Partnerships: Multi/cross-sectoral cooperation












| <i>Is there any multi/cross-sectoral cooperation (involving different sectors, ministries, agencies) that has enhanced standardised practice or improved interoperability in land administration in your country?</i> | | Answers | Ratio |
|---|--|---------|--------|
| Yes, at the international level. |  | 4 | 25% |
| Yes, at the EU level. |  | 5 | 31.25% |
| Yes, at the cross/border, regional level. |  | 4 | 25% |
| Yes, at the national level. |  | 9 | 56.25% |
| No, there is no particular cross-country/international knowledge transfer. | | 0 | 0% |
| Not sure. |  | 3 | 18.75% |

Table 5: Partnerships: Successful multi/cross-sectoral cooperation

| <i>Do examples of successful multi/cross-sectoral cooperation (involving different sectors, ministries, agencies) exist that have enhanced standardised practice or improved interoperability in land administration in your country?</i> | | Answers | Ratio |
|---|---|---------|--------|
| Yes, International/EU-funded interdisciplinary programme(s)/project(s) for innovations in land administration. |  | 3 | 18.75% |
| Yes, National-funded interdisciplinary programme(s)/project(s) for innovations in land administration solutions. |  | 2 | 12.5% |
| Yes, International/EU-funded joint development project(s) resulting in a standardised or streamlined land registration process (involving different sectors). |  | 6 | 37.5% |
| Yes, National joint development project(s) resulting in a standardised or streamlined land registration process (involving different sectors). |  | 7 | 43.75% |
| Yes, commercial/private sector funded initiatives somehow related to land administration. |  | 1 | 6.25% |
| No. | | 0 | 0% |
| Not sure. |  | 4 | 25% |






The final question in this section on partnerships sought to clarify whether the private sector is involved in the land administration (cadastral) processes. Most respondents indicated that their cadastral practices include licensed land surveyors. In some countries, these surveyors act as private consultants or companies within the land administration system (31%), while in others, licensed land surveyors are

integrated into the governmental process in the land administration system (56%). Only two involved countries do not have a system for licenced land surveyors. Among countries with licensed land surveyors, approaches to continuous professional development of land surveyors/licensed surveyors vary (Table 6).

Some respondents reported continuous training programmes for licensed land surveyors, such as: (i) regularly scheduled workshops, seminars, and accreditation renewals (18.75%), (ii) comprehensive career/cooperation development programme including ongoing education and performance evaluations (18.75%), or (iii) professional development of licensed surveyors organised through the association (31.25%). Other responses indicated that there are no specific mechanisms for continuous professional development of licenced land surveyors (18.75%) or only occasional training sessions (12.5%).

In summary, **while licensed land surveyors are widely integrated into land administration systems, differences in their roles and inconsistent approaches to continuous professional development point to gaps in capacity building and standardisation.** This question already directed us towards the next pathway: Capacity and Education.

Table 6: Partnerships: Licensed land surveyors

| <i>What mechanisms are in place to ensure the continuous professional development of land surveyors/licensed surveyors in your country?</i> | | Answers | Ratio |
|---|---|----------------|--------------|
| No specific mechanisms in place, development is self-directed. |  | 3 | 18.75% |
| Occasional training sessions, and updates on regulatory changes. |  | 2 | 12.5% |
| Regularly scheduled workshops, seminars, and accreditation renewals. |  | 3 | 18.75% |
| A comprehensive career/cooperation development programme including ongoing education and performance evaluations. |  | 3 | 18.75% |
| Professional development of licensed surveyors organised through the association. |  | 5 | 31.25% |

3.2 *FELA Pathway VIII: Capacity and Education*

As stated in FELA, ‘Capacity development and education is about transformations that empower individuals, leaders, organisations and societies. Strengthening awareness, knowledge and know-how, improving competencies, skills and instincts with education, training, continual development, and lifelong learning improves capacities for governments, organisations, communities and individuals.’

FELA recognises that capacity development, including education, training, awareness-raising, and skills development, is crucial for achieving sustainable and effective land administration. Several actions and considerations under the Capacity & Education pathway are outlined, such as knowledge and skills transfer among all land administration stakeholders, development of formal educational programmes, raising community awareness, promoting cross-border and interdisciplinary knowledge sharing, and more.

The questions regarding Capacity and Education are hence focusing on:








- Continual development and lifelong learning,
- Formal education programme,
- Context-based skills training,
- Cross-country experiences,
- Interdisciplinary knowledge sharing,
- Diversity in approach and solving recruitment and capacity development.

FELA’s Capacity & Education pathway emphasises developing technical competence, institutional capability, and awareness across all stakeholder levels. Therefore, the first question focuses on capacity development programmes for land administration officials.

The results indicate that 75% of programmes focus on regular updates regarding national land legislation, policy changes, and compliance, which aligns closely with FELA’s principle of knowledge transfer and awareness building. In terms of technical and professional skills, 31.25% of respondents reported that capacity building programmes include technical training in geodesy and land surveying, while 37.5% prioritise data processing, management, and cybersecurity training. The responses also show that soft skills are included in capacity building programmes; however, only 25% stated that skills enhancement in negotiation and stakeholder management are the topics of programmes, and only one responder selected leadership as a topic (Table 7).

In summary, the focus of capacity building programmes for land administration officials is on legislation and regulations, which indicates a narrow concentration on compliance and policy literacy. This result demonstrates less emphasis on the broader spectrum of capacity building that FELA envisages, such as leadership, innovation, community engagement, and digital transformation skills. The relatively moderate proportions for technical and digital upskilling may suggest limited investment in digital and technological capacity, which FELA identifies as essential for delivering efficient, transparent, and high-quality services in land administration. Soft skills, leadership, and institutional strengthening are underinvested relative to FELA’s aim to build capable institutions that can coordinate across government, engage citizens, and drive reform.






Table 7: Capacity and Education: Continual development and lifelong learning

| <i>What are the key focus areas in your capacity development programmes aimed at government land administration officials?</i> | | Answers | Ratio |
|--|---|----------------|--------------|
| Regular updates on national land legislation/policy changes and regulatory compliance. |  | 12 | 75% |
| Skills enhancement in negotiation and stakeholder management. |  | 4 | 25% |
| Technical training in the latest developments in geodesy and land surveying. |  | 5 | 31.25% |
| Technical training in data processing, management and cybersecurity. |  | 6 | 37.5% |
| Leadership development for high-ranking land administration officials. |  | 1 | 6.25% |
| No specific focus areas in capacity development programmes. |  | 1 | 6.25% |
| Do not know. |  | 1 | 6.25% |

The next question concerned the support provided by public land administration institutions for encouraging entrepreneurship in land administration technology. The results are presented in Table 8. Most respondents stated that supporting entrepreneurship is not a primary focus, and most of the organisations involved do offer specific support for entrepreneurship (56.25%). Only one case was identified, where incubation services for developers of land management software are provided, and one where partnerships with venture capitalists specialising in PropTech investments are known (Table 8). However, respondents mentioned other actions that support innovation and entrepreneurship, such as annual conferences and workshops, provision of open data for innovation, and specific innovation training, in collaboration with other authorities.

In summary, direct support for entrepreneurship is limited, but existing innovation-related activities indicate the need to explore the role of formal education programmes.

Table 8: Capacity and Education: Entrepreneurship








| <i>What specific support does your organisation provide to encourage entrepreneurship in land administration technology?</i> | | Answers | Ratio |
|--|---|---------|--------|
| Grants for tech startups focusing on land registration solutions. | | 0 | 0% |
| Incubation services for developers of land management software |  | 1 | 6.25% |
| Partnerships with venture capitalists specialising in PropTech investments. |  | 1 | 6.25% |
| Annual hackathon for innovative land use planning solutions. |  | 2 | 12.5% |
| No specific support provided for entrepreneurship. |  | 9 | 56.25% |
| Other. |  | 4 | 25% |
| Do not know. |  | 1 | 6.25% |

FELA’s Capacity and Education Pathway promotes the integration of land administration into formal education systems, from tertiary education to vocational and continuing professional development, to ensure a skilled, adaptive, and professional workforce in the land sector.

The next question concerned the integration of land administration and cadastral topics in formal education in the country. The results are summarised in Table 9. They show a strong foundation in formal education for land administration, as most respondents indicate the integration of land administration topics into existing geodesy, surveying, and land administration curricula (68.75%) or dedicated programmes at the Bachelor of Science (BSc) and Master of Science (MSc) levels (62.5%). Lifelong learning appears to be a weak area, with continuing professional development opportunities mentioned by only 25% of respondents. Based on the answers, it can be concluded that land administration education is well embedded in traditional technical and land-related disciplines, which corresponds with FELA’s recommendation to: *‘Integrate land administration education across related disciplines to build multi-disciplinary understanding of land governance.’*






This shows strong alignment with FELA’s emphasis on formal, structured education for professionalisation in land administration. Such programmes contribute to professional recognition and institutional capability, which are key outcomes envisioned in the pathway. **The low continuing professional development ratio suggests that, while initial education is strong, ongoing skills renewal is limited.**

Table 9: Capacity and Education: Formal education programme

| <i>What is the level of integration of land administration/cadastral topics in formal education in your country?</i> | | Answers | Ratio |
|--|---|---------|--------|
| Land administration is not included in any formal education. | | 0 | 0% |
| Land administration is included as part of broader geodesy/surveying studies. |  | 11 | 68.75% |
| Land administration is included as part of broader land management studies. |  | 5 | 31.25% |
| Dedicated courses available at the Bachelor of Science (BSc) level. |  | 10 | 62.5% |
| Dedicated courses available at the Master of Science (MSc) level. |  | 10 | 62.5% |
| Continuing Professional Development (CPD) courses available for professionals. |  | 4 | 25% |
| Other. |  | 1 | 6.25% |
| Do not know. |  | 1 | 6.25% |







These formal education programmes are associated with the finding that specific degree programmes at national universities are typically required by land administration authorities and for professional licensing (e.g. geodesy, land surveying) (75%). Related degree programmes at national universities (e.g. geography, civil engineering, law) are also frequently recognised by the national land authority or organisation in land administration (43.75%). Some countries also have self-tailored programmes developed by the national land authority or organisation (18.75%), which provide candidates with the skills and capacities needed for work in land administration (Table 10).

Table 10: Capacity and Education: Formal education programme

| <i>Which accredited academic programmes in land administration/cadastre are recognised by your national land authority/organisation?</i> | | Answers | Ratio |
|--|--|---------|--------|
| Specific degree programmes at national universities recognised by land administration authorities and professional licensing (e.g. geodesy, land surveying). |  | 12 | 75% |
| Related degree programs at national universities (e.g. geography, civil engineering, law). |  | 7 | 43.75% |
| Self-tailored program developed by the national land authority/organisation. |  | 3 | 18.75% |
| Dedicated courses available at Bachelor of Science (BSc) level. |  | 4 | 25% |
| None. | | 0 | 0% |
| Other. |  | 3 | 18.75% |
| Do not know. | | 0 | 0% |

This result leads to the next question, which examines the impact of existing education and training initiatives on operational efficiency. Respondents generally believe there are some measurable improvements, with moderate (18.75%) and slight improvements (18.75%) in practice, indicating that training programmes are beginning to yield results. Only a small proportion (12.5%) reports substantial efficiency gains, suggesting that most initiatives have not yet achieved the level of institutional transformation envisioned by FELA. The largest single response category (31.25%) was Impact not yet assessed, highlighting a critical gap in monitoring and evaluation - a core element of effective implementation under FELA (Table 11). **The result indicates that although capacity and education initiatives exist, their evaluation and operational linkage remain weak.**

Table 11: Capacity and Education: Formal education programme

| <i>Assess the impact of the current education and training initiatives on operational efficiency in land administration in your country/region. [single choice]</i> | | Answers | Ratio |
|---|--|---------|--------|
| Substantial improvement noted in audit reports and stakeholder feedback. |  | 2 | 12.5% |
| Moderate improvement with some processes streamlined across the country. |  | 3 | 18.75% |
| Slight improvement but significant gaps remain. |  | 3 | 18.75% |
| No measurable impact on operational efficiency. |  | 1 | 6.25% |
| Impact not yet assessed. |  | 5 | 31.25% |
| Do not know. |  | 2 | 12.5% |

Regarding context-based skills training, respondents were asked which capacity development areas their organisation prioritises for training land administration professionals (Table 12). Training in their organisations primarily focuses on geospatial technologies, such as land surveying and other land data acquisition approaches (81.25%), geospatial data processing and analysis (87.5%), and legal framework, licensing, and policy-making (56.25%). This focus partly aligns with responses about key areas in capacity development programmes for government land administration officials (see Table 7) and previous findings in other FELA pathways. There is less emphasis on soft skills, such as ethical land governance practices (18.75%), financial topics (6.25%), stakeholder engagement, and conflict resolution (12.5%). Additionally, only 37.5% prioritise digital tools and systems, despite FELA’s identification of digital modernisation as a critical enabler of effective land administration. **Training for land administration professionals is heavily focused on technical and legal skills, while soft skills and digital competencies, despite their importance, receive significantly less attention.**







Table 12: Capacity and Education: Context-based skills training

| <i>Which capacity development areas does your organisation prioritise for training land administration professionals?</i> | | Answers | Ratio |
|---|--|---------|--------|
| Land surveying and/or other land data acquisition approaches. | | 13 | 81.25% |
| Geospatial data processing and analysis. | | 14 | 87.5% |
| Legal frameworks, licensing and policy-making. | | 9 | 56.25% |
| Ethical land governance practices. | | 3 | 18.75% |
| Financial conditions. | | 1 | 6.25% |
| Stakeholder engagement and conflict resolution. | | 2 | 12.5% |
| Digital transformation and software tools for land administration and management. | | 6 | 37.5% |
| Others. | | 0 | 0% |

Building on this, the next question examines cross-country experiences in capacity and education. As encouraged by FELA, sharing knowledge across borders helps land administration professionals adapt innovations, anticipate challenges, and develop multi-disciplinary problem-solving skills - a key element of Pathway VIII. However, only limited global curriculum integration is observed.

Curricula focus on the local context rather than being designed to equip professionals with knowledge of cross-country legal frameworks or comparative practices - a priority in FELA’s recommendations. There is some incorporation of case studies from other countries, which is valuable for understanding diverse legal, technical, and institutional models. 37.5% of respondents believe that international case studies are included in the curricula, and 25% report exchange programmes and partnerships with international universities or land agencies. Only 12.5% of respondents believe that curriculum is dynamically updated curriculum based on emerging global trends and collaborations. **These findings indicate a limited integration of global and adaptive learning approaches**, which directly relates to the next question on interdisciplinary knowledge sharing. FELA emphasises that effective land administration requires professionals to integrate technical, legal, environmental, and social perspectives, and that education programmes should support cross-disciplinary learning.







Table 13: Capacity and Education: Cross-country experiences

| <i>How is interdisciplinary knowledge sharing implemented within your country's educational land administration (surveying and cadastre) programme? [single choice]</i> | | Answers | Ratio |
|---|---|---------|-------|
| Not at all, our curriculum does not include international perspectives, approaches, developments. |  | 1 | 6.25% |
| Occasionally, case studies from other countries are included in the curriculum. |  | 6 | 37.5% |
| Regularly, there are also exchange programs and partnerships with international universities or land agencies that offer cross-country experiences. |  | 4 | 25% |
| Extensively, the curriculum is designed around a global curriculum that integrates cross-country legal frameworks, technologies, and practices. | | 0 | 0% |
| Dynamically, at universities, the course content is adapted and updated based on emerging global trends and collaborations in the field. |  | 2 | 12.5% |
| Other. |  | 1 | 6.25% |
| Do not know. |  | 2 | 12.5% |

The next question concerned *how interdisciplinary knowledge sharing is implemented within the country's educational land administration programme* (Table 14).

Only 18.75% reported structural courses, and 6.25% reported fully integrated or holistic approaches to interdisciplinary knowledge sharing. This indicates that interdisciplinary learning is not yet systematically embedded in most programmes, which likely leaves professionals with predominantly technical or siloed knowledge. 31.25% reported guest lectures from other disciplines, but these are ad hoc and insufficient to develop true multi-disciplinary competencies. More than 30% of responses were 'Do not know', which **indicates low awareness or inconsistent interdisciplinary approaches**.

Table 14: Capacity and Education: Interdisciplinary knowledge sharing

| <i>How is interdisciplinary knowledge sharing implemented within your country's educational land administration (surveying and cadastre) programme? [single choice]</i> | | Answers | Ratio |
|--|---|---------|--------|
| No formal interdisciplinary activities are integrated into our programmes. |  | 1 | 6.25% |
| Limited: occasionally, guest lectures from other disciplines are invited. |  | 5 | 31.25% |
| Structural: specific courses are designed to blend concepts from technology, law and environmental science with land administration. |  | 3 | 18.75% |
| Integrated: joint degrees or modules with other departments like urban planning, civil engineering and others are offered. |  | 1 | 6.25% |
| Holistic: interdisciplinary collaboration is a cornerstone involving joint projects, integrated curricula, and continuous dialogue between different academic departments and private sector partners. |  | 1 | 6.25% |
| Do not know. |  | 5 | 31.25% |

3.3 FELA Pathway IX: Advocacy and Awareness

Within the FELA pathway IX – Advocacy and Awareness, the requirement for land administration is described as advocating for effective land administration through national engagement and enhanced communication. FELA states: *‘Advocacy and awareness are an essential element of any contemporary land administration initiative, program, project and resultant system. Land administration cannot succeed without stakeholder acceptance and support across society. Advocacy and awareness activities can help to create and maintain this backing.’* Effective land administration requires active, multi-level stakeholder identification and engagement—from local communities to international organisations. This includes planning targeted communication strategies, using appropriate platforms and languages, and regularly evaluating their impact to ensure relevance and effectiveness.

The questions regarding Advocacy and Awareness focus on:







- Communication,
- National engagement,
- Monitoring and Evaluation.

The first question addresses the types of targeted awareness campaigns (Table 15). Collaboration with educational institutions is the most frequently reported targeted awareness campaign, indicated by 62.5% of respondents. This demonstrates a strong recognition of integrating land administration topics into formal education and engaging students, researchers, and academics in spreading knowledge and building capacity. Examples such as publications for children show efforts to make land-related issues more accessible and to build awareness from an early age.

Local workshops in communities, municipalities, and cities are also widely used, with 50% of countries implementing such initiatives. These workshops allow direct interaction with the public, fostering trust, understanding, and feedback at the community or municipality level. This localised approach aligns with the FELA and IGIF emphasis on inclusivity and context-sensitive communication.







Interactive online campaigns, such as social media outreach, are used by 37.5%, indicating a moderate but growing shift towards digital communication channels. These campaigns enable rapid dissemination of information, real-time engagement, and wide reach, especially among younger and urban populations. Examples include initiatives like the Property Alert System or local community events such as the Ploughing Championships.

Table 15: Advocacy and Awareness: Targeted awareness campaigns

| <i>What types of targeted awareness campaigns has your organisation executed in the past year(s) to inform the public about land administration/land rights, cadastre, surveying procedures, rights restrictions and responsibilities around land?</i> | | Answers | Ratio |
|--|---|---------|-------|
| Interactive online campaign using social media. |  | 6 | 37.5% |
| Other media campaigns (nationwide radio/TV campaigns). |  | 4 | 25% |
| Local workshops in communities/municipalities/cities. |  | 8 | 50% |
| Collaboration with educational institutions. |  | 10 | 62.5% |
| No targeted awareness campaigns executed. |  | 2 | 12.5% |
| Other. |  | 2 | 12.5% |
| Do not know. | | 0 | 0% |







This leads to the next question regarding how the communication needs are addressed for different stakeholder groups. Most respondents (62.5%) state that they periodically assess communication needs using surveys and feedback mechanisms (Table 16). This indicates a strong awareness of the importance of stakeholder engagement and suggests that many organisations are actively seeking to understand their audiences. Although periodic assessments are not conducted in real time, they provide a structured approach to communication planning and serve as a basis for ongoing refinement. However, 25% of respondents acknowledge that they do not specifically map communication needs, which may be a concern. **In the context of FELA and IGIF, this highlights a gap in alignment with best practices, where stakeholder-specific communication is considered essential.**

Table 16: Advocacy and Awareness: Communication needs of different stakeholders

| <i>How does your organisation map and address the communication needs of different stakeholder groups in land administration?</i> | | Answers | Ratio |
|---|---|---------|-------|
| We do not specifically map communication needs. |  | 4 | 25% |
| We periodically assess communication needs through surveys and feedback. |  | 10 | 62.5% |
| We have developed detailed profiles for each stakeholder group and tailor communications accordingly. |  | 1 | 6.25% |
| We use advanced analytics to continually update and customise communication strategies. |  | 2 | 12.5% |
| Other. |  | 1 | 6.25% |
| Do not know. |  | 2 | 12.5% |

The survey results on the monitoring and evaluation mechanisms for assessing the impact of the organisation's communication reveal a lack of structured and proactive monitoring and evaluation (M&E) of communication (Table 17). 31.25% of respondents report lacking formal mechanisms to monitor and evaluate the impact of their communication strategies. This is a significant gap, especially given the FELA emphasis on continuous, responsive, and evidence-based communication. Without M&E mechanisms, organisations risk engaging in communication that is ineffective, not targeted, or unresponsive to stakeholder needs, ultimately undermining trust and participation in land administration. As indicated in the survey, 37.5% of respondents conduct annual reviews of communication effectiveness. Annual reviews are a good baseline practice but may not be frequent enough to address rapidly changing stakeholder needs, public sentiment, or emerging issues. Only 6.25% report having real-time monitoring tools and quarterly impact assessments - a best practice that enables more agile and data-informed communication adjustments.





Table 17: Advocacy and Awareness: Monitoring and evaluation

| <i>Describe the mechanisms in place for monitoring and evaluating the impact of your communication. [single choice]</i> | | Answers | Ratio |
|---|---|---------|--------|
| We lack formal mechanisms for monitoring and evaluation the communication impact. |  | 5 | 31.25% |
| We conduct annual reviews of communication effectiveness. |  | 6 | 37.5% |
| We have real-time monitoring tools and conduct quarterly impact assessments. |  | 1 | 6.25% |
| We use a combination of internal and external audits to evaluate and adjust our strategies continuously. |  | 2 | 12.5% |
| Other. |  | 1 | 6.25% |
| Do not know. |  | 1 | 6.25% |

The participants were also asked to assess the effectiveness of their communication strategies for reaching non-technical audiences (Table 18).

None of the respondents reported that their communications are ‘often too technical and not tailored to non-expert audiences.’ This suggests **a general awareness and effort across the countries to communicate in more accessible ways, which is a positive sign of alignment with the FELA requirements and goals.** The most common response (43.75%) indicates that organisations actively use plain language and visual aids to improve communication. This is considered good practice in land administration. The use of visual tools, such as maps, infographics, or videos, helps bridge the gap between expert knowledge and public understanding. A further 37.5% acknowledge they are trying to simplify language but see room for improvement. Only 12.5% report using a segmented communication strategy, which involves customising content for different audience groups based on their technical knowledge.






Table 18: Advocacy and Awareness: Effectiveness of communication strategies

| <i>Assess the effectiveness of your communication strategies in reaching non-technical audiences, especially in complex land administration issues. [single choice]</i> | | Answers | Ratio |
|---|---|---------|--------|
| Our communications are often too technical and not tailored to non-expert audiences. | | 0 | 0% |
| We try to simplify language but could improve our approach. |  | 6 | 37.5% |
| We use plain language and visual aids to ensure comprehension across a broad audience. |  | 7 | 43.75% |
| We have a segmented communication approach, ensuring all materials are accessible and understandable by varying levels of technical expertise. |  | 2 | 12.5% |
| Other. | | 0 | 0% |
| Do not know. |  | 1 | 6.25% |

In the following question, respondents were asked to assess the effectiveness of national engagement strategies in enhancing public debates and decision-making on land issues (Table 19).

The most common response (50% of respondents) was that national engagement strategies are ‘somewhat effective’, with only occasional public participation in land-related debates. This indicates that although outreach and engagement efforts exist, they are often sporadic or event-driven, rather than part of a systematic and institutionalised process for involving the public in shaping, for example, land policy or practices. This reflects a limited depth of engagement, where the public may be informed, but not truly involved in shaping policies or common practices. 18.75% reported their strategies as ‘moderately effective’, indicating regular involvement in policy discussions. This implies that in some countries, engagement strategies are more deeply embedded in governance processes and may influence decision-making more consistently. Only one respondent (6.25%) rated their national engagement strategy as ‘highly effective’, indicating strong and consistent public participation that actively shapes land policies. **This underscores how rare it is to find land administration systems that are participatory, in the sense that they provide open, ongoing, and influential opportunities for public input.**






Table 19: Advocacy and Awareness: Effectiveness of national engagement strategies

| <i>Evaluate the effectiveness of national engagement strategies in enhancing public debates and decision-making on land issues. [single choice]</i> | | Answers | Ratio |
|---|---|---------|--------|
| Not effective, little to no impact on public engagement. |  | 1 | 6.25% |
| Somewhat effective, occasional engagement in public debates. |  | 8 | 50% |
| Moderately effective, regular involvement in policy discussions. |  | 3 | 18.75% |
| Highly effective, strong and consistent public engagement and influence on policy. |  | 1 | 6.25% |
| Do not know. |  | 3 | 18.75% |

The respondents were asked to provide information on awareness initiatives in their organisations that are implemented to increase public understanding of land administration roles and responsibilities (Table 20).

The most commonly implemented initiatives are workshops, events, or study days targeted at non-experts, cited by 50% of respondents. Targeted awareness campaigns were reported by 43.75%, indicating strong recognition of the need for strategic communication efforts. Online interactive webinars with Q&A and regular public forums were each used by 25% of respondents. Notably, 18.75% of respondents reported that no specific awareness initiatives have been implemented. **This highlights a significant gap, especially considering FELA’s emphasis on advocacy as a critical enabler of effective land administration.**

Table 20: Advocacy and Awareness: Awareness initiatives

| <i>Which specific awareness initiatives has your organisation implemented to increase public understanding of land administration roles and responsibilities?</i> | | Answers | Ratio |
|---|---|---------|--------|
| Regular public forums and Q&A sessions. |  | 4 | 25% |
| Workshops/events/study days for non-experts. |  | 8 | 50% |
| Targeted awareness campaigns. |  | 7 | 43.75% |
| Online interactive webinars with Q&A. |  | 4 | 25% |
| Other. |  | 2 | 12.5% |
| No specific awareness initiatives have been implemented. |  | 3 | 18.75% |
| Do not know. | | 0 | 0% |

The next two questions examined how vulnerable groups, such as the elderly and other minorities, are included and informed about land administration services and information (Table 21). The findings show a strong reliance on general and digital or online assistance rather than targeted inclusion. While 62.5% of respondents report that services are accessible online with helpline support, and 56,25% provide general information without specific outreach, these approaches depend on citizens' digital access, skills, and initiative. Proactive and tailored outreach is rare, although cooperation with municipalities (18.75%) suggests some awareness of the importance of local intermediaries.

The subsequent question addresses the role of land administration in a specific context and its relation to vulnerable groups. The most common response (43.75%) indicates that land administration plays only a minor role in housing policy, limited to providing data without involvement in policy formulation or decision-making. 18.75% of respondents report that land administration indirectly influences housing through broader land use policies. **This indicates that while land administration institutions are not directly targeting housing issues of vulnerable groups, their outputs (e.g., zoning maps, land classifications) still shape the context in which housing is developed or restricted.** 18.75% indicate that land administration is a critical component, playing a direct role in shaping housing allocations or subsidies. This reflects an integrated approach, where land data and systems actively inform or support housing programmes.

The responses to the two questions position land administration bodies primarily as service providers and data managers, with limited engagement in inclusive outreach or policy coordination. Within FELA, it is recommended to actively support vulnerable groups through targeted awareness campaigns.

Table 21: Advocacy and Awareness: Inclusiveness and service availability












| <i>How do you ensure that all citizens, including vulnerable groups like the elderly and other minorities, are aware of and can access land administration services and information?</i> | | Answers | Ratio |
|--|---|---------|--------|
| We provide general information but no targeted outreach. |  | 9 | 56.25% |
| We offer information sessions in community centres focusing on elderly and vulnerable groups. |  | 1 | 6.25% |
| We have mobile units that visit (remote) areas to provide services and information. | | 0 | 0% |
| All our services are accessible online, and we provide assistance via a dedicated helpline. |  | 10 | 62.5% |
| We cooperate with municipalities to train staff there locally. |  | 3 | 18.75% |
| Other. | | 0 | 0% |
| No specific actions. |  | 1 | 6.25% |
| Do not know. | | 0 | 0% |

Table 22: Advocacy and Awareness: Inclusiveness

| <i>Assess the role of land administration in your country's housing policies, particularly in relation to vulnerable groups (elderly, younger generation, migrants). [single choice]</i> | | Answers | Ratio |
|--|---|---------|--------|
| Land administration plays no role in housing policies. |  | 1 | 6.25% |
| Land administration plays just a minor role in housing policies by providing data but not participating in discussions. |  | 7 | 43.75% |
| It indirectly affects housing through general land use policies. |  | 3 | 18.75% |
| It is a critical component, directly shaping housing allocations and subsidies. |  | 3 | 18.75% |
| It leads housing policy development, including specific measures for vulnerable groups. | | 0 | 0% |
| Other. |  | 1 | 6.25% |
| Do not know |  | 1 | 6.25% |

The next two questions address two critical global challenges: food security (Table 23) and climate change (Table 24). Both issues are included in the Sustainable Development Goals (SDGs) and are central to the FELA, which advocates for land administration and management that is not only technically efficient but also socially, economically, and environmentally responsive. Summarising the response to the two questions, the data reveals that 56.25% of respondents indicate land administration plays only a minor role, mostly providing data without involvement in policymaking. 12.5% acknowledge an indirect impact, and 12.5% a critical direct impact on food security, typically through land use planning or supporting agricultural processes. 50% of respondents state that climate change is not a focus of their land administration advocacy efforts, while 25% include general references to climate change in their communications. **These findings indicate a potential for greater strategic alignment between land administration, food security, and climate change policies.** Although the technical capacities and data frameworks of land agencies are well-established in most countries, their potential to drive resilient, inclusive, and sustainable development appears under-leveraged.

Table 23: Advocacy and Awareness: Food Security
















| <i>Assess the role of land administration in your country’s food security policies [single choice]</i> | | Answers | Ratio |
|---|---|---------|--------|
| Land administration plays no role in agriculture/food security | | 0 | 0% |
| Land administration plays just a minor role in agriculture/food security by providing data, but not participating in discussions. |  | 9 | 56.25% |
| It indirectly affects agriculture/food security through general land use policies. |  | 2 | 12.5% |
| It is a critical component, directly shaping agriculture/food security. |  | 2 | 12.5% |
| It leads land policy, including specific measures for agriculture/food security. |  | 1 | 6.25% |
| Other. | | 0 | 0% |
| Do not know. |  | 2 | 12.5% |

Table 24: Advocacy and Awareness: Climate change

| <i>What strategies are implemented to ensure that land administration advocacy includes climate change impacts and sustainability practices? [single choice]</i> | | Answers | Ratio |
|--|---|---------|-------|
| Climate change is not currently a focus of our land administration advocacy. |  | 8 | 50% |
| We include general information about climate change in our communications. |  | 4 | 25% |
| We have specific advocacy campaigns focused on sustainable land management and climate resilience. |  | 1 | 6.25% |
| We integrate climate change impact assessments in all land administration planning and engage stakeholders specifically on sustainability. |  | 1 | 6.25% |
| Other. |  | 1 | 6.25% |
| Do not know. |  | 1 | 6.25% |

The last question was: *How is gender inclusivity addressed in their stakeholder engagement and communication strategies* (Table 25)? 43.75% of respondents indicate that gender inclusivity is not specifically addressed, suggesting that **nearly half of the responding organisations currently do not consider gender as a distinct factor** in their outreach or engagement strategies. 18.75% report they are exploring ways to include more gender-inclusive practices. Only 25% ensure gender-balanced representation in discussions and communication materials.

Table 25: Advocacy and Awareness: Gender

| <i>How is gender inclusivity addressed in your stakeholder engagement and communication strategies? [single choice]</i> | | Answers | Ratio |
|---|--|---------|--------|
| Gender inclusivity is not specifically addressed. |  | 7 | 43.75% |
| We are exploring ways to include more gender-inclusive practices. |  | 3 | 18.75% |
| We ensure gender-balanced representation in all discussions and materials. |  | 4 | 25% |
| We conducted targeted outreach and engagement initiatives to empower underrepresented genders in land administration. | | 0 | 0% |
| Other. | | 0 | 0% |
| Do not know. |  | 2 | 12.5% |

4 DISCUSSION AND CONCLUSION

4.1 Trends and Outliers

The survey results from the FELA Pathways on Partnerships, Capacity and Education, and Advocacy and Awareness provide detailed insights into current practices and areas for improvement across the responding organisations.

Partnership is the strongest of the three pathways in this survey. Most respondents participate in international and regional knowledge-exchange networks such as UN-GGIM Europe, FIG, EuroGeographics, ELRA, PCC, and established regional platforms (e.g. Western Balkans cadastre/SDI conference). Cooperation typically involves the form of EU/international projects, joint R&D, shared standards and regular expert meetings. Institutional subsidiarity is partially applied: central authorities retain control over land data but delegate defined responsibilities to local bodies.

In the Capacity and Education pathway, a strong technical foundation, legal compliance focus, and integration of land administration topics into formal education are evident. Curricula are largely technically siloed and not fully aligned with FELA’s multi-disciplinary approach. One weakness identified is in lifelong learning activities, where continual development is not institutionalised. Positive outliers include dynamic curricula, holistic interdisciplinary approaches, and tailored innovation support, which show potential models for best practices.

Advocacy and awareness are the least developed pathway across the survey. Many organisations undertake communication activities (web and social media campaigns, local workshops, cooperation

with schools), but systematic planning and evaluation are rare. Targeted communication with vulnerable groups (elderly, minorities, remote communities) is sporadic. Some organisations use municipal cooperation, but many provide only general information or online services. Regarding policy linkages, most respondents characterise land administration's role in housing and food security as indirect or '*data-provider only*'. Only some organisations describe land administration as a critical component shaping housing allocations or agriculture, food security, climate change and gender policies.

4.2 *Limitations and Further Work*

The survey provides valuable insights into the practices and challenges related to partnerships, capacity and education, and advocacy and awareness within European land administration approaches, but it has several limitations that should be considered. Firstly, the survey's scope is limited to a European perspective, so the findings may not accurately reflect the situation in other regions.

The survey results are based on responses from only a portion of the target population. This partial participation may lead to a limited representation, as not all relevant stakeholders are included, potentially introducing bias into the findings. The questions in the survey were designed as indicators for the operationalisation of the FELA objectives rather than as definitive measures.

Furthermore, the survey does not provide complete coverage of each FELA pathway. While it highlights key aspects, there are areas within each pathway that remain unexplored, leaving gaps in overall understanding. To address these gaps and gain a more comprehensive understanding, more in-depth studies are necessary.

In addition to further research, the survey results benefited from more detailed discussions, facilitated through a workshop in June 2025 in Paris, France (<https://www.eurosdrr.net/workshops/international-workshop-challenges-relation-un-framework-effective-land-administration-fela>, see report Cantat et al., 2025). The workshop discussion confirmed the EuroSDR initiative on FELA and the questionnaires confirmed the relevance of FELA as a global framework, while highlighting the need for clearer contextual adaptation and broader stakeholder engagement. Participants emphasised that future applications of the survey should better define expected outcomes, be tailored to different stakeholder groups and regions, and make greater use of synthesis tools, including AI-based analysis.

Engagement and capacity building emerged as key challenges. Workshop participants called for more inclusive processes, clearer communication using non-technical language and stronger involvement of scientific communities. FELA should support mutual understanding across countries, address gaps in education and training, and provide practical guidance for institutional capacity development.

Overall, the findings of the survey and the EuroSDR workshop in Paris underline the importance of strengthening impact measurement, strategic partnerships and knowledge dissemination. Positioning FELA as a living document, linked national strategies and international initiatives, will be essential to enhance FELA's relevance and effectiveness for the future.

5 CONCLUSION

In conclusion, the survey results are evaluated for their alignment with the FELA Goals and Requirements (Figure 2).










| FELA Goals | FELA Requirements | FELA Pathways |
|--|--|--|
| Transparency and accountability increased | Accountable and transparent governance | Governance, Institutions and Accountability*  |
| Gender-responsive and inclusive of vulnerable groups | Inclusive and recognizes all forms of tenure | Policy and Legal  |
| Affordable investments and economic return assured | Affordable with sustainable business models | Financial  |
| Reliable data and service quality attained | Data maintained, secure and not duplicated | Data  |
| Responsible and innovation oriented | Upgradable systems and approaches | Innovation  |
| Interoperability and integration supported | Considers internationally agreed standards | Standards  |
| Cooperation, partnerships, and participation leveraged | Strengthens partnerships and supports collaboration | Partnerships  |
| Capacity, capability, knowledge transfer and exchange attained | Facilitates capacity development and knowledge transfer and exchange | Capacity and Education  |
| National engagement and communication enhanced | Advocates for effective land administration | Advocacy and Awareness*  |

Figure 2: FELA Goals and Requirements (source: UN-GGIM, 2020)

The survey results from the FELA Pathways on Partnerships, Capacity and Education, and Advocacy and Awareness demonstrate varying levels of conformity with the FELA objectives and requirements as outlined:

Partnerships

FELA Goal: Cooperation, partnerships and participation leveraged

FELA Requirement: Strengthens partnerships and supports collaboration

The survey reveals a general alignment with the FELA Goal and Requirement for Partnerships through regional and international engagement, with well-established mechanisms for cross-country knowledge exchange, multilateral coordination, and joint implementation. These activities support the FELA Goal of leveraging partnerships and cooperation and **partially** meet the requirement to strengthen partnerships and support collaboration. However, limited subsidiarity, innovation-driven cooperation, and minimal private sector involvement indicate that further efforts needed to embed inclusive and cross-sectoral strategic partnerships.

Capacity and Education

FELA Goal: Capacity, capability, knowledge transfer, and exchange attained

FELA Requirement: Facilitates capacity development, knowledge transfer and exchange

Capacity development programmes for land administration officials predominantly focus on legislation and regulatory compliance, with only moderate emphasis on technical training. This reflects a narrow concentration on compliance and policy literacy, and insufficient investment in the broader skills FELA envisages, such as leadership, innovation, and community engagement. Survey results further show that the current education and training landscape in the domain of land administration is strong in technical foundations and legislation but weak in social, ethical, and managerial capacity. From a FELA perspective, this constitutes a first-generation capacity system, which builds technical competence but lacks the institutional maturity and inclusivity. Future capacity development should expand from technical proficiency to transformational competence, combining digital innovation, ethical governance, and participatory approaches for a more sustainable and people-centred land administration system. Continuous learning remains largely underdeveloped.

Formal education is well established and aligned with professionalisation, but monitoring and evaluation of outcomes and operational impact are weak. Curricula are mainly locally focused, with cross-country learning occurring ad hoc rather than systematically. Internationalisation is underdeveloped, limiting exposure to global best practices and innovation. Additionally, interdisciplinary learning is not systematically embedded, and awareness is low. Most programmes remain technical and siloed, with insufficient integration of legal, environmental, planning, and social perspectives.

Advocacy and Awareness

FELA Goal: National engagement and communication enhanced

FELA Requirement: Advocates for effective land administration

The survey indicates a moderate but fragmented implementation of advocacy and communication strategies across European countries. Although efforts are underway to increase public understanding and stakeholder engagement in land administration, the responses suggest only partial conformity with the FELA Goal of enhanced national engagement and communication, as well as its requirement to advocate for effective land administration.

In summary, the survey results show partial alignment with the three Strategic Pathways of FELA: Partnerships, Capacity and Education, and Advocacy and Awareness. There is strong regional and international cooperation, supporting knowledge exchange and coordination. Regarding partnerships, there is limited local empowerment and minimal private sector involvement. Current training and curricula mainly focus on technical skills and laws, with little emphasis on soft skills. Advocacy and awareness activities are present but fragmented. Overall, across the three pathways, the results show only partial achievement or alignment with FELA's goals and requirements.

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Appendix: List of respondents' origin countries/regions

- Austria
- Croatia
- Cyprus
- Estonia
- France
- Germany
- Ireland
- Norway
- Poland
- Romania
- Slovenia
- Sweden
- Switzerland
- The Netherlands