Guidance for guidelines: A review of land administration and governance curriculum development guidelines and their uptake

Grazyna WIEJAK-ROY, United Kingdom, Simon HULL, South Africa

SUMMARY

The need for sound land administration and governance has been highlighted as a necessity for attaining several of the Sustainable Development Goals. This, in turn, creates a need for education and training of suitably qualified professionals. Land administration curriculum designers have at their disposal several guidelines to support them in this endeavour. Among these, the most notable include the *Teaching Essentials on Responsible Land Administration* (TERLA), *Guidelines for the Development of Curricula on Land Governance in Africa*, and the recently released *Land Administration Domain Model in the Classroom*. Each of these educational guidelines has been developed by a different organisation (the Global Land Tools Network, the African Union, and the International Federation of Surveyors, respectively) for different audiences and purposes. Additionally, guidelines in support of improved land governance in general (not education-specific) have also been published, specifically the African Union's *Framework and Guidelines on Land Policy in Africa*. While having such an array of good quality guidelines is undoubtedly an asset, curriculum developers may experience the paradox of choice, whereby having too many choices leaves one overwhelmed, insecure, and unable to decide. We reflect on these curriculum development guidelines and provide recommendations for curriculum developers navigating through this myriad of ideas and approaches. We take a two-pronged approach: 1) Through a globally distributed online survey, we investigate the knowledge and uptake of the abovementioned guidelines by educators as well as their perceived usefulness. The uptake of TERLA was last assessed in 2021 – this project builds on and extends this work. 2) Through interviews with educators in land governance, we assess existing land administration and governance curricula at selected higher education institutions against existing guidelines. Drawing the two prongs together, our aim is to produce a comprehensive description of how guidelines are being used in support of land administration and governance curriculum development, with suggestions for improvements. Being a work in progress, this paper presents preliminary results only. The authors seek feedback from conference participants on matters related to higher education curriculum development for land administration and governance.

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1 INTRODUCTION AND MOTIVATION

Land is a central asset in most societies. The effective governance, use, and administration of land resources underpin livelihoods, infrastructure delivery, food security, and climate resilience. However, as challenges related to rapid urbanization, customary tenure recognition, and land-based financing intensify, the demand for professionals who are well-equipped to manage complex land systems is growing (Enemark, 2023). The need for sound land administration has also been highlighted as a necessity for attaining several of the SDGs (Enemark, 2016). In addition, the Global South sees challenges of legal pluralism and tenure insecurity (Ruffin, 2019). Addressing these challenges requires suitably educated, trained and qualified land professionals capable of creating and maintaining sound land administration systems. Yet, many higher education institutions lack structured, interdisciplinary, and competency-based curricula tailored to contemporary land administration needs (Chigbu *et al.*, 2017, 2021).

In response to this capacity gap, several organisations have published authoritative guidelines that may be used to steer curriculum development in land-related disciplines. While such guidelines are undoubtedly valuable resources, curriculum developers may experience the paradox of choice (Schwartz, 2004), where having too many options leads to an inability to decide. As it can be easy to become overwhelmed by too much information and assistance, Hull and Mabakeng (2025) have shown that it is possible to synthesise multiple guidelines by leveraging the power of artificial intelligence. Yet the challenge for curriculum developers lies in understanding the guidelines' respective purposes, choosing which guideline to align with, how to integrate the advice offered by multiple guidelines, and how the guidelines can be applied within their own context. Curriculum developers may opt either to not align with any of the guidelines, align with one or more, or cherry-pick aspects from multiple guidelines. Each option has its own drawbacks.

In this research we explore how educators navigate the tension between these guidelines and local contextual realities when designing curricula. This study aims to investigate the uptake and utilization of curriculum development guidelines pertaining to land administration and related disciplines, with an eye to learning lessons for the future development of such curricula. This aim is supported by the following objectives: (1) to assess global and regional uptake of land administration curriculum development guidelines; and (2) to understand how such guidelines have been / are being used in the development of land administration curricula.

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2 GUIDELINES

While there are many guidelines available, we focus our attention on four (**Figure 1**) that cover broad scope from political vision to curriculum design to technical implementation:

1 TERLA: The *Teaching Essentials for Responsible Land Administration* (Enemark, 2023) is a comprehensive educational framework designed to provide a structured knowledge base geared towards responsible land administration.
2 GDCLG: The *Guidelines for the Development of Curricula on Land Governance in Africa* (African Land Policy Centre, 2022) provides a blueprint for curriculum design that is uniquely responsive to the land governance challenges in Africa.
3 F&G: The *Framework and Guidelines on Land Policy in Africa* (AUC-ECA-AfDB Consortium, 2010) provides a reference point for African governments to use in formulating effective, context-specific national land policies.
4 LADMitC: The *Land Administration Domain Model (LADM) in the classroom* (Lemmen *et al.,* 2025) serves as an educational resource for students and educators to understand the LADM standard (ISO, 2012).
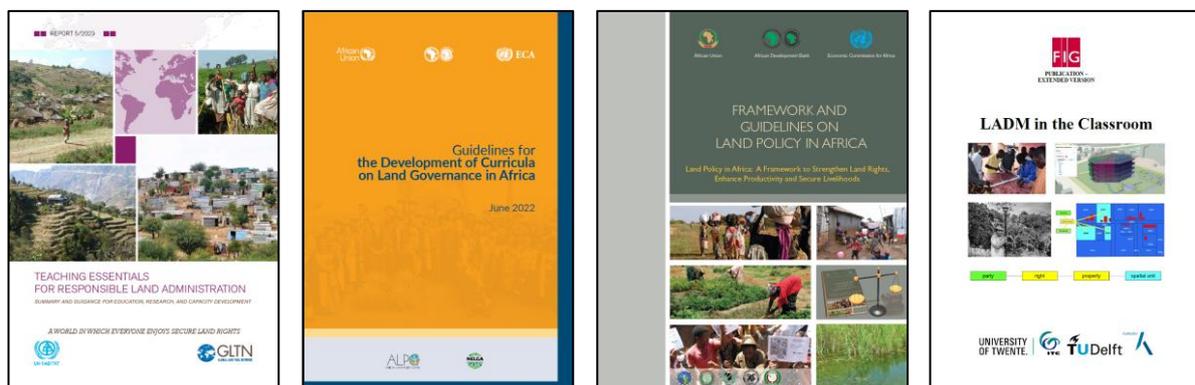

Figure 1. Cover pages of the four guideline documents reviewed.

2.1 Purpose and approach of selected guidelines

The F&G provides a comprehensive, pan-African framework and a continental reference point to assist African member states in the formulation, implementation, and monitoring of effective, context-specific national land policies. Its approach is political and strategic, diagnosing the historical and socio-economic land challenges in Africa and outlining the necessary steps for policy development, implementation, and tracking progress. It emphasizes alignment with regional and global development agendas. The F&G's primary audience is African governments, policymakers, and decision-makers (Heads of State, Ministers).

The primary purpose of TERLA is to provide a standardized, yet flexible, pedagogical foundation and structured knowledge base for land administration education globally, with particular focus on developing countries. It serves as a toolkit and set of resources for educators, researchers, and professional trainers to reform curricula, develop new courses (including e-learning and MOOCs), and enhance professional capacity development. Its approach is

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thematic and pedagogical, comprising six flexible, modular content packages designed to integrate technical, social, and policy dimensions, promoting fit-for-purpose and pro-poor land tools. It is explicitly designed to produce competent land professionals capable of addressing complex, real-world challenges through an interdisciplinary lens. TERLA targets educators, university lecturers, and training institutions globally, particularly in developing countries.

The GDCLG is a curriculum reform blueprint. Its purpose is to address critical human capital and capacity gaps in Africa by providing universities with concrete, context-sensitive guidelines for revitalizing or establishing new degree and training programmes in land governance. Its approach is directive and competency-based, mapping out core thematic modules, advocating for work-integrated learning, and stressing the inclusion of African land realities and indigenous knowledge. The ultimate goal is to build a critical mass of qualified land professionals with the necessary skills to implement key continental frameworks, such as the F&G. The GDCLG targets African university faculty, curriculum developers, and accreditation bodies.

The LADMitC is a technical and pedagogical guide. Its purpose is twofold: to provide comprehensive technical guidance for system developers and practitioners in implementing the LADM standard, and to serve as an educational resource for students and educators. It aims to demystify LADM's complex concepts and facilitate a common, standardized understanding of land administration concepts across various agencies. Its approach is technical and teaching-focused, illustrating the LADM conceptual model through a simulated environment and providing reusable datasets for practical, hands-on learning to support the digitalization of land administration systems globally. The LADMitC targets students, university teachers, and land information system designers and developers.

2.2 Key themes

A core focus of the F&G is the centrality of land and the importance of recognising and protecting all forms of land rights and tenure. Land is seen as essential for economic growth, poverty reduction, food security, social stability, and peace – linking strongly to several SDGs (Enemark, 2016). Advocating for tenure security means addressing historical injustices, ensuring transparent and participatory policy processes, and ensuring land rights of women, youth, and other vulnerable groups are protected. This requires robust land administration systems, coherent legal frameworks, and capacity development to ensure that such systems are effective and sustainable.

A key theme promoted by the TERLA is that of responsible land administration, emphasizing that land administration must transcend technical precision to serve broader goals of social justice, equity, human rights, environmental sustainability, and economic development. TERLA also advocates for pro-poor, fit-for-purpose, and inclusive approaches, recognising the full continuum of land rights (Du Plessis et al., 2016). The use of novel tools such as the Social Tenure Domain Model (Lemmen, 2010) and other frontier technologies (IFAD, 2023) provides essential means for land rights recording and recognition. Interdisciplinarity is another key theme, stressing the necessity of integrating technical cadastral and geospatial skills with knowledge of land law, policy, social sciences, and ethics, moving away from siloed or

fragmented training. Moreover, TERLA promotes the integration of contemporary standards, open data, and decolonized content that acknowledges diverse land tenure types, hybrid systems, and restitution histories.

The GDCLG emphasizes the need for education that foregrounds African realities, including colonial legacies, customary tenure systems, plural legal systems, indigenous knowledge, rapid urbanization, climate change adaptation, and post-conflict land issues. Like TERLA, it also advocates for a balance between technical and social skills, promoting a competency- and outcomes-based curriculum. It stresses the importance of hands-on experience through work-integrated learning, practical field experience, research-led teaching, community engagement, and partnerships with government and civil society. The desired outcome is a curriculum designed to shape solution-oriented, ethically minded, and practice-aligned graduates.

The LADMitC focuses on the core conceptual components of the LADM model, demonstrating its flexibility in supporting diverse tenure types and its utility in fit-for-purpose land administration approaches. It bridges the gap between theoretical frameworks and practical implementation through use of a hypothetical single-case study, supported by illustrative real-world scenarios. The publication positions the LADM as a crucial tool for digitalizing land administration (FAO *et al.*, 2022), ensuring tenure security, accessibility, and transparency, and supporting broader land governance goals.

2.3 Key strengths

The primary strengths of the F&G lie in its continental legitimacy (developed through extensive, inclusive consultation and endorsed by the African Union), its comprehensive scope in diagnosing complex land issues (colonial legacies, legal pluralism, ecological constraints), and its strategic guidance. It offers both guiding principles and operational steps for land policy development, mainstreaming land in national development, and establishing robust monitoring mechanisms. Its focus on reconciling *'traditional'* and *'modern'* systems, while championing pro-poor and gender-sensitive approaches, makes it a valuable resource for achieving sustainable development in Africa.

The TERLA's strengths include its comprehensive, detailed, and well-referenced structure, as well as its clear articulation of core values, its alignment with global agendas like the SDGs, and its explicit provision of practical teaching resources. Despite somewhat limited global visibility, outdated references, and a lack of structured case studies for diverse contexts, TERLA creates opportunities for leveraging digital transformation, expanding accessibility (e.g., through MOOCs), and adapting the resources to specific regional contexts (Hull *et al.* 2024).

The GDCLG's primary strength lies in its continental mandate, context-sensitivity, and high level of detail. It moves beyond general principles to provide concrete recommendations on modular structures, credit allocations, competency mapping, quality assurance, and assessment strategies. It is designed for adaptability, offering minimum course requirements while allowing institutions to tailor content to national needs and resource constraints. It contributes

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significantly to curriculum harmonization across African institutions while ensuring the content directly addresses the unique and complex land governance challenges facing the continent.

The LADMitC's principal strengths are its educational focus by explicitly providing reusable teaching materials and guidance for curriculum integration, and its technical comprehensiveness. It effectively bridges the technical requirements of the LADM ISO standard (ISO, 2012) with practical, real-world application, making it invaluable for capacity development. By addressing the modelling of diverse and hybrid tenure realities, it acts as both a technical standard as well as a learning vehicle for exposing students to critical data governance issues.
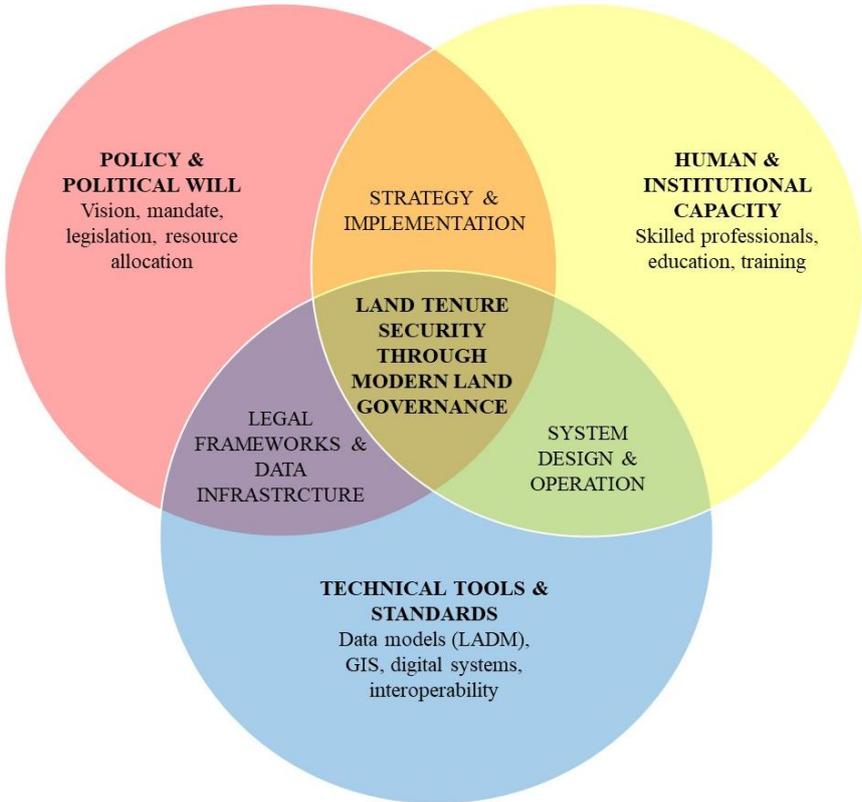
2.4 Synergies

Figure 2. Integrated elements of land governance working together for land tenure security. Source: Authors' own

These four guideline documents are well-aligned and address a shared overarching goal: land tenure security through modern land governance. This shared goal requires three integrated elements (**Figure 2**):

1. **Policy and Political Will:** The decision to prioritize land governance reform, as stressed upon in the F&G (AUC-ECA-AfDB Consortium, 2010).

2. **Human and Institutional Capacity:** The skilled professionals to design and execute reforms, a specific outcome of effective curriculum design (African Land Policy Centre, 2022; Enemark, 2023).

3. **Technical Tools and Standards:** The systems required to record, manage, and protect land rights, as elucidated in the LADMitC (Lemmen *et al.*, 2025).

Together, these guidelines form a logical and integrated implementation chain that addresses land governance from the highest policy level down to the technical training and data standards required for its execution. The F&G sets the vision and justification for making land issues a central concern for policy design in support of development and stability in Africa. It also mandates states to take action in this regard. It identifies the capacity gap that TERLA and the GDLGC are designed to fill. The former provides the core curriculum philosophy, while the latter is specifically designed to meet the mandate of the F&G. Finally, LADMitC provides the technical standard required for modern, efficient, and transparent land administration systems, which is repeatedly called for by the other three documents.

While the F&G and GDLGC have an African focus, they have relevance beyond the continent. Issues such as pro-poor and fit-for-purpose approaches, gender sensitivity, recognition of plural tenure types, and equitable access are prevalent in many post-colonial contexts in the Global South. As a set, these four documents move from an African policy imperative (F&G) to globally applicable methodologies (TERLA, GDLGC) and anchor on a universal technical standard (LADMitC). This structure makes the entire group a relevant, integrated model for land governance education in any region grappling with issues of tenure insecurity, capacity gaps, and the need for digital modernization.
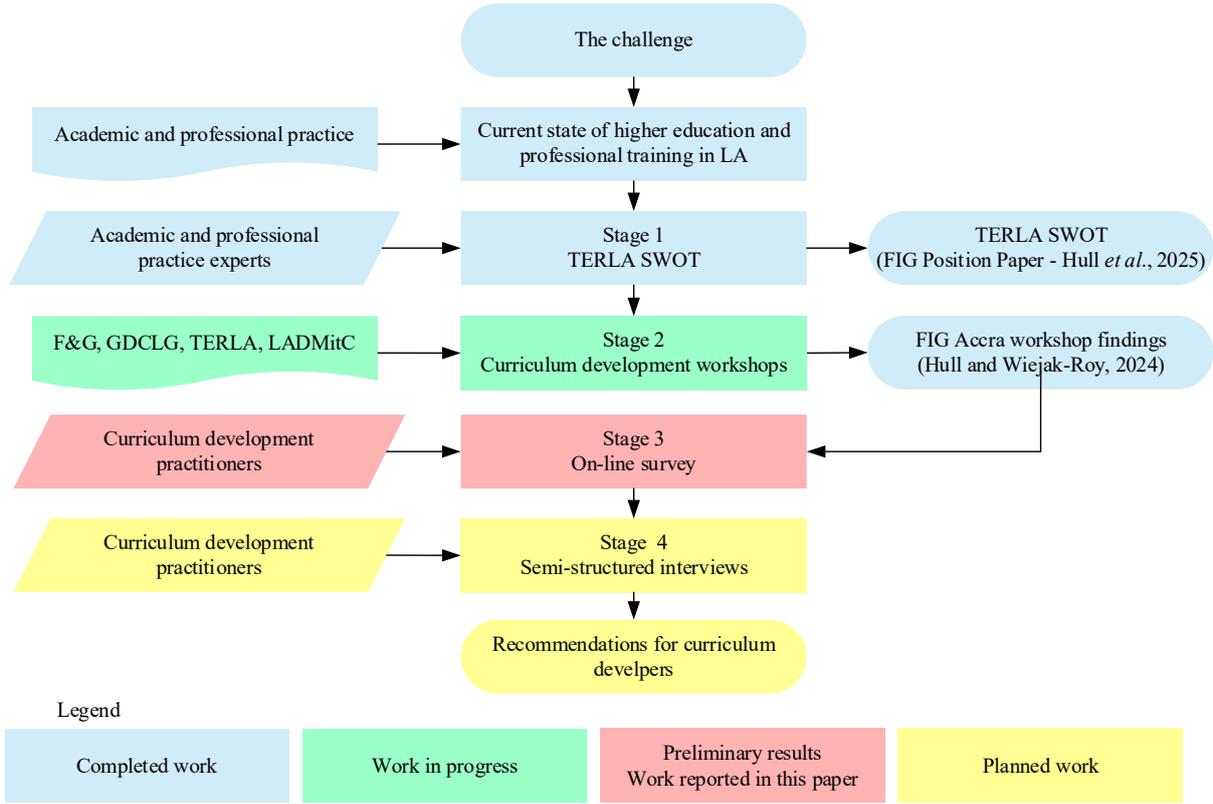
3   METHODOLOGY

Figure 3. Staged research approach. Source: Authors' own

Our research is conducted in four stages: Stage 1 - TERLA SWOT, Stage 2 - Curriculum development workshops, Stage 3 – On-line survey, and Stage 4 – semi-structured interviews (**Figure 3**). Stage 1 has been completed, Stages 2 and 3 are in progress and Stage 4 is to be completed following on Stage 3.

3.1 Stage 1 – TERLA SWOT

We began with a SWOT analysis of TERLA as a key land administration teaching resource, suggesting directions for future changes to TERLA to ensure it is up to date and responding to a wide range of stakeholders' needs (Hull *et al.*, 2024). This stage involved a structured group process including expert opinions to seek consensus on the future directions for TERLA. We used a mixed approach involving expert elicitation and elements of instruments such as focus groups, Nominal Group Technique (NGT), the Delphi method and a step-wise process:

A self-selected group of members of Working Group 2.4 / 7.7 Land Administration Education of the International Federation of Surveyors (FIG) was established, including some of the authors of this paper. The group comprised experts in the field of land administration and curriculum development experienced in both academic formal education and professional

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training. As and when required individual experts also engaged with other educators, professional bodies and professionals acting in the field of land administration.

As TERLA covers six modules, based on individual reading of the whole TERLA package, each member of the group identified the modules they preferred to review. This allowed the group to form *'module leads'*, who were in charge of not only providing details for the SWOT analysis for their module but also in considering voices of other group members, who focused on other modules. This ensured that once the individual feedback was collected, there was a comprehensive basis for the whole group to reflect holistically on the entire TERLA package.

The group met regularly in 2023-2024 both face-to-face and online as a full group as recommended in NGT. In-between these meetings, members of the group provided asynchronous inputs as required by the Delphi method. Moreover, representatives of the group presented their early observations at the FIG Commission 2 & 7 Annual Meeting 2023 in Deventer and during a panel discussion collected first hand feedback from several authors of TERLA and inputs from international educators (Hull *et al.*, 2023). The primary output was a position paper (Hull *et al.*, 2024) lauding TERLA's merits while simultaneously highlighting the need for updates to ensure that modules remain relevant and suitable for versatile use across various countries.

3.2. Stage 2 – Curriculum development workshops

Based on the observations made in Stage 1, we sought to understand how tools such as TERLA may influence higher education curriculum development for land administration. We thus organized a workshop during the 2024 FIG Working Week in Accra (Hull and Wiejak-Roy, 2024). Participants ($n = 30$) of the workshop represented academics from universities offering surveying programmes at various levels, government employees, independent researchers, institution representatives, and private practitioners. The workshop covered the following questions:

1. What is a land administration graduate expected to do in the workplace?
2. What are the desired knowledge areas for land administration?
3. What are the desired core skills and technical competencies for land administration?
4. What are the gaps between graduate knowledge / skills and the needs of professionals in the workplace?
5. At what educational level should land administration programmes be taught?
6. Should land administration programmes be professionally accredited and if so by whom and for what purpose?

The workshop was conducted in the spirit of the World Café approach by splitting participants into three groups who rotated between three stations. Groups were given 10 minutes for discussion at each station before moving to the next station. At each station, the participants discussed two questions and wrote down their ideas on flipchart paper. To enrich the responses, participants in subsequent rounds added comments either directly on the flipcharts or in the

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form of Post-it notes (**Figure 4**). This process was followed by a discussion eliciting key observations.

Responses to questions revealed the importance of moving beyond polarised and silo mentality and the need to bring together the private sector, NGOs, civil society organisations, academia and government in land administration discussions. The vast breadth, depth and content scope of land administration are major challenges to integrating all aspects into one degree or programme, suggesting a need for curriculum developers to focus on certain aspects. This is particularly problematic for master's and PhD level curricula, that may or may not build on previous learning in other areas. This raised a concern about when and how to introduce integrative high-level conceptual issues about the structure of land administration to provide a window into where the various specialisations (e.g., law, planning, geomatics, urban governance, valuation) fit into the overall land administration architecture to sensitise students at an early stage to the inter-disciplinary nature of land administration. Finally, irrespective of these details, participants agreed that where suitable, land administration higher education programmes should be supported and accredited by the relevant professional or government bodies, including consideration of FIG providing such accreditation (see also recommendations in Hull & Mabakeng (2025)).

Figure 4. Notes from the land administration education workshop held at the FIG Working Week 2024 in Accra, Ghana. Source: Authors' own

Stage 2 is scheduled to continue at the FIG Congress in Cape Town, May 2026, with a two-session workshop entitled *Reimagining Land Administration Education: Towards Conceptualizing a Core Body of Knowledge.* This workshop will explore participants' perspectives on:

1. the core body of knowledge in land administration education;
2. the integration of emerging technologies, interdisciplinary approaches, and real-world challenges into land administration curricula;
3. how to embrace emerging ideas and practices in underrepresented regions; and
4. the role of regional and global networks in advancing land administration imperatives.

3.3. Stage 3 – Online survey

Stages 3 and 4 aim to investigate the experiences of academic and practitioner audiences with tools such as the F&G, GDCLG, LADMitC, and TERLA. In Stage 3 we also seek to identify other resources that might have been used in specific countries when developing land administration and related curricula.

An on-line survey (https://uwe.eu.qualtrics.com/jfe/form/SV_71UICA9kaVFfmfk) has been selected as a research instrument with follow-up interviews (Stage 4). The survey enables data comparison and both qualitative and quantitative analysis and helps boost the response rate needed to collect sufficient evidence from participants across a number of countries. Experienced academics and professionals were selected as respondents via purposive expert sampling including academics and professionals working in land administration at higher education institutions and other professionals active in this field. This approach ensured that all participants were competent to respond to the survey and could be reasonably expected to respond professionally.

The survey was launched in June 2025 at the Build Back Better - The Self-Made Cities conference in Athens, Greece and then distributed among academics and professionals engaged in land administration and related fields via FIG and Commonwealth Association of Surveying and Land Economy (CASLE) newsletters and researchers' professional contacts. Survey data was collected using Qualtrics XM software with statistical analysis based directly on all primary data gathered and exported into Microsoft Excel for further analysis. The survey consisted of the following parts:

1. Participants' details (professional role, countries where they operate, disciplines in which they operate, familiarity with the four guidelines, involvement in development of land administration curricula using these guidelines);
2. Details of experience of using these guidelines (to what extent they were used, suitability for specific levels of academic qualifications, other qualitative observations based on the use of these guidelines);
3. Details of experience of using other curriculum development resources;
4. Agreement to be included in Stage 4 of the research.

Likert scale data was analysed using descriptive and inferential statistics. Qualitative text responses were examined using the six-step thematic analysis including (1) familiarising with data; (2) generating initial codes; (3) searching for themes by combining codes; (4) reviewing themes; (5) defining themes; and (6) reporting findings.

3.4. Stage 4 – Semi-structured interviews

The last stage of the research seeks insights into land administration curriculum development tools using semi-structured interviews with land administration curriculum developers who opted in to this stage of the research during the online survey in Stage 3. Semi-structured

interviews have been chosen as they enable researchers to obtain more specific details on issues identified through the survey. This stage of the project is on-going at the time of writing.

4   STAGE 3 - RESULTS

The survey yielded responses from 30 countries across all continents (*n* = 92). As expected, most participants represented various African countries (52%), followed by European countries (31%) (**Figure 5**). Most participants identified themselves as academic lecturers and researchers, confirming a strong engagement of such participants in land administration and related curriculum development (**Figure 6**). Several participants identified themselves as having more than one professional role (**Figure 7**). Most frequently participants declared representing Land Surveying, Planning, Geospatial and Real Estate disciplines underscoring the complexities of land administration. However, numbers of those representing Local Government and Land Governance were significantly lower. Notably, the survey also attracted participants representing property development and built environment disciplines (Development, Architecture, Building Surveying, Quantity Surveying, Civil Engineering) and Others (Land law experts, disaster risk reduction, community engagement and geography). Several participants identified themselves as representing more than one discipline.
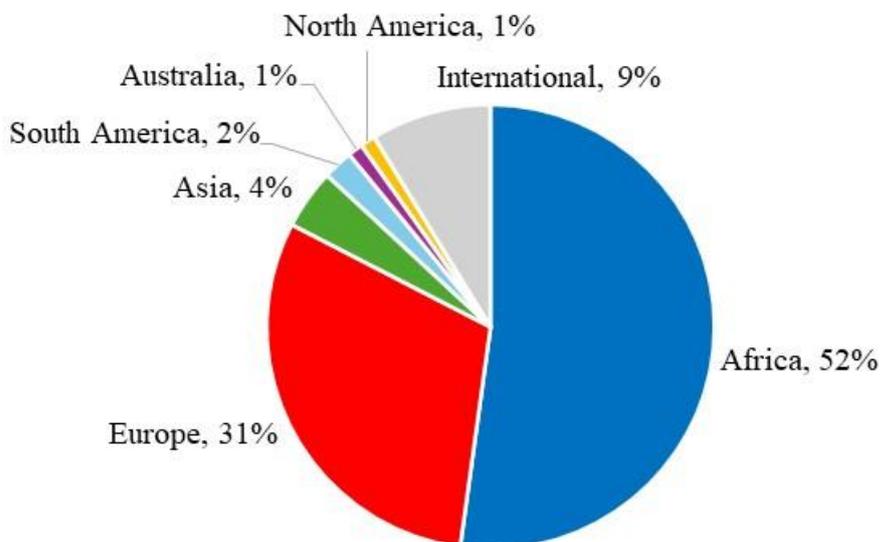

Figure 5. Geographical coverage. Source: Authors' own

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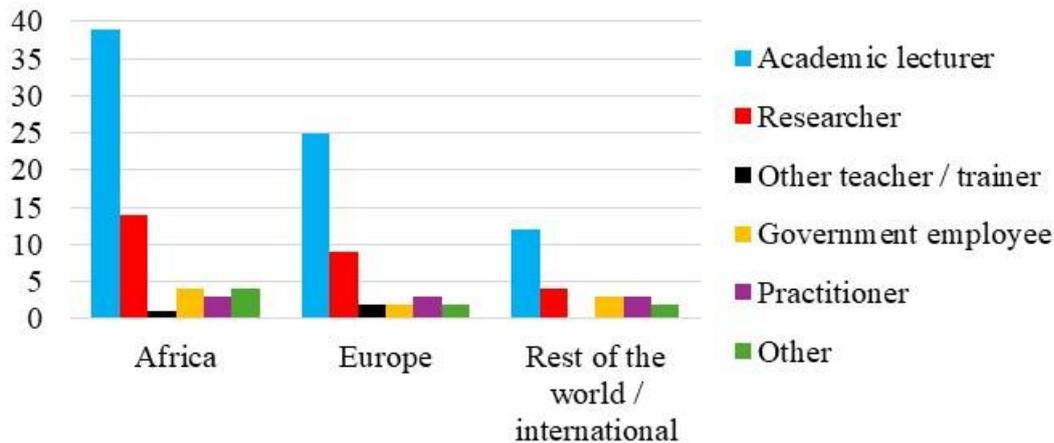Cape Town, South Africa, 24–29 May 2026

Figure 6. Professional roles. Source: Authors' own

We started by asking participants about their awareness of the four guidelines. Overall, 16% of participants were proficient with the analysed guidelines, while 31% acknowledged familiarity. Although 23% declared vague or limited knowledge, as many as 30% only learned about them from our survey. Notably the highest level of familiarity was declared for TERLA and LADMitC (**Figure 8**). However, these results varied at the continent level. In Africa, participants were slightly more familiar with F&G and GDCLG than with TERLA and LADMitC, while elsewhere it was the opposite and the difference was much stronger, suggesting perhaps a wider international reach of TERLA and LADMitC.
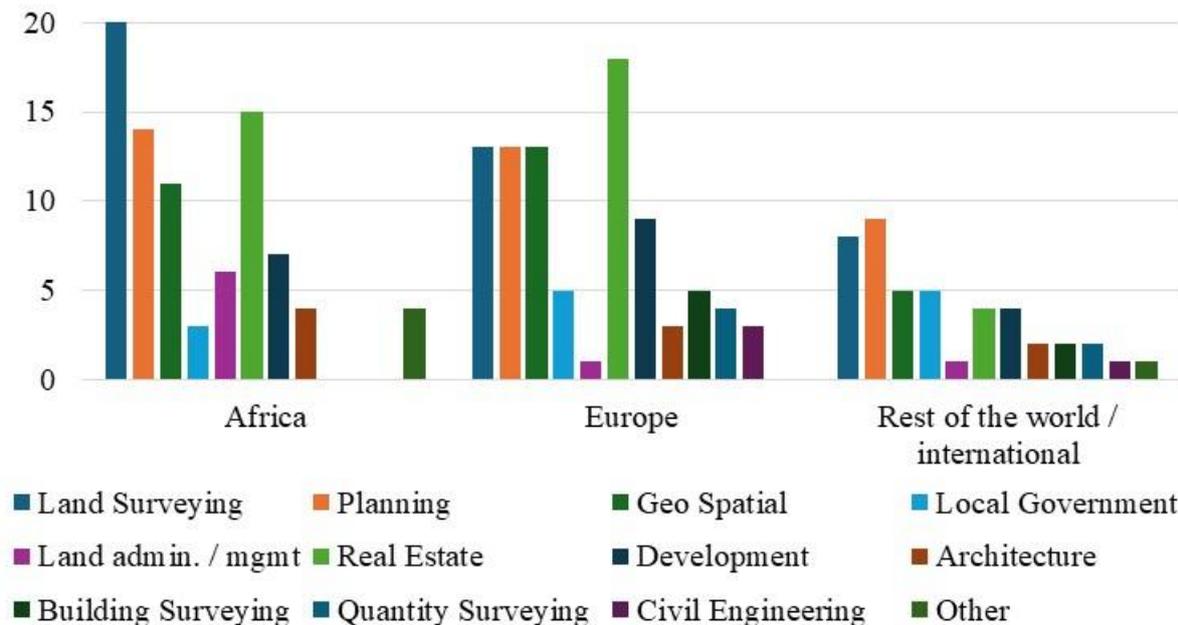
Figure 7. Discipline relating to land administration. *Source: Authors' own*

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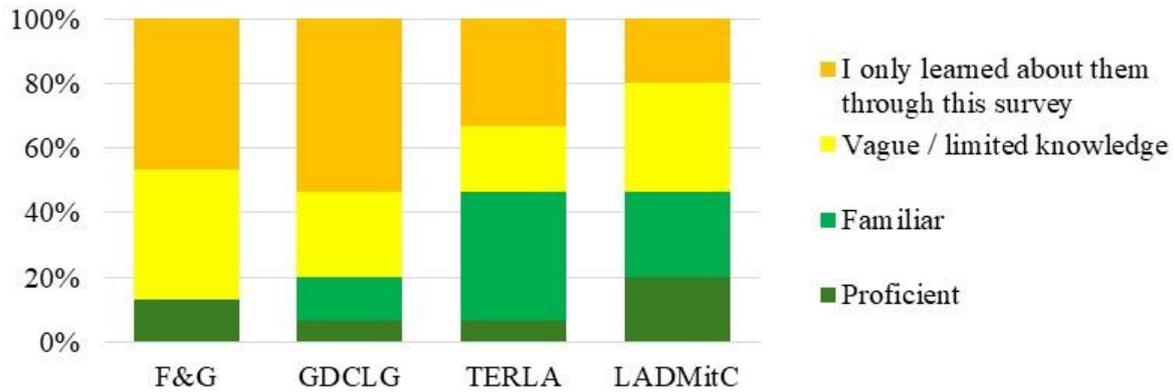Cape Town, South Africa, 24–29 May 2026

Figure 8. Familiarity with analysed guidelines. Source: Authors' own

Participants most frequently declared learning about the analysed guidelines through professional training (presentations, workshops and webinars) and via higher education institutions (HEIs). Many, frequently working at HEIs, also declared learning about the guidelines through various types of research and conferences, while others mentioned wider internet searches and professional organisations. Hence, while academics naturally seem to be the most knowledgeable about the analysed guidelines, the declared sources suggest that communication via conferences and professional organisations could be stronger in promoting professionalism in land administration. Furthermore, only very few participants declared to have learned about the guidelines via projects or from colleagues, suggesting that the usage of guidelines is overly focused on HEIs and less so on the professional practice (**Figure 9**).

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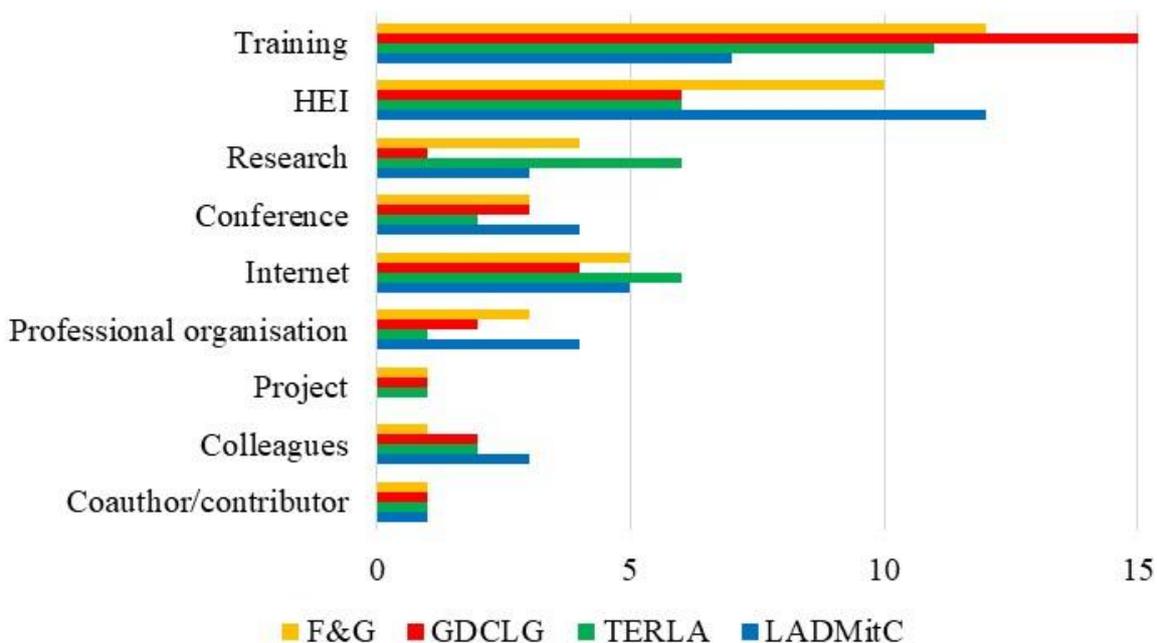Cape Town, South Africa, 24–29 May 2026

Figure 9. Source of knowledge about analysed guidelines. Source: Authors' own
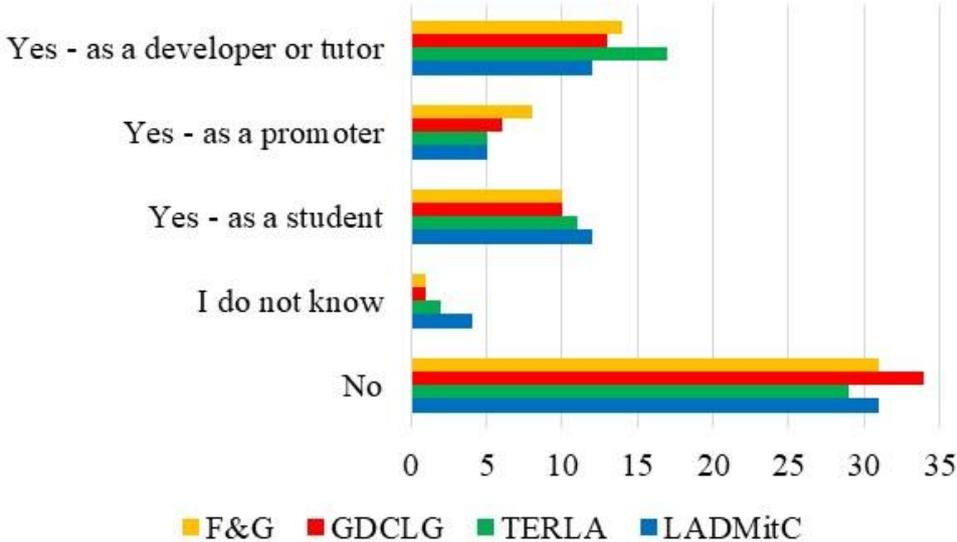

Figure 10. Involvement in a course that has used any of the analysed guidelines. Source: Authors' own

When asked about being involved in programmes that used any of the analysed guidelines, most participants declared to have been involved in a course that has used TERLA (52%), followed by F&G (50%) and LADMitC and GDCLG (each 45%) (**Figure 10**). TERLA is also the most popular among developers and tutors (27%) vs. the other three guidelines (19-22%). However, LADMitC was the most popular among students (19%) vs 16-17% for the other three guidelines. Contrary to that, among promoters F&G was the most popular (13%) vs 8-9% for the other guidelines.

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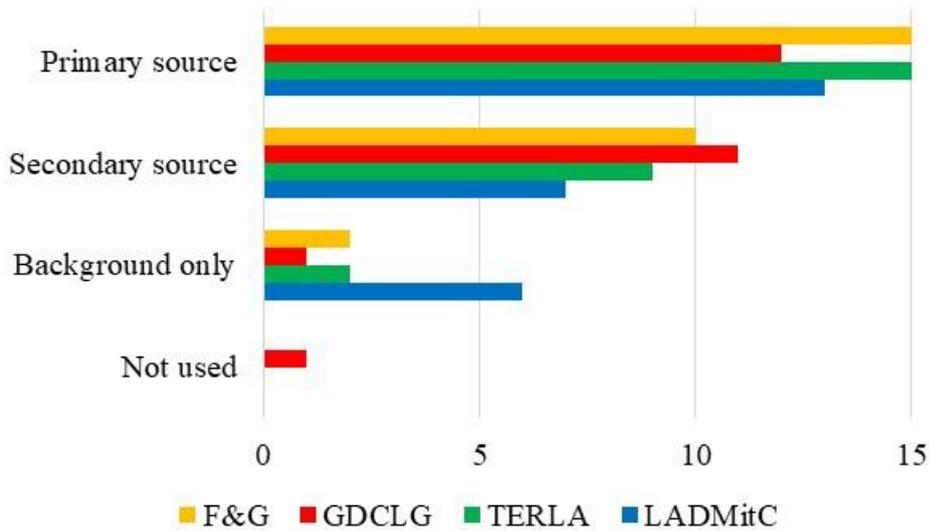Cape Town, South Africa, 24–29 May 2026

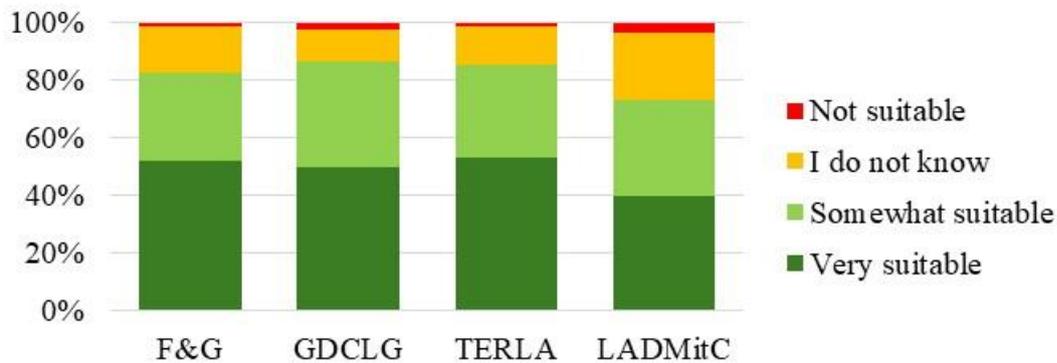**Figure 11.** Usage of the analysed guidelines. Source: Authors' own

Figure 12. Suitability of analysed guidelines for teaching and training. Source: Authors' own

We then asked those who have been involved in courses using the analysed guidelines about how they used the guidelines (**Figure 11**). Overall, 53% used the guidelines as primary sources, i.e. the guidelines directly informed course development, either exclusively or in conjunction with additional resources. 36% used the guidelines as secondary or supportive resources to supplement and / or as inspiration in course development, while 11% used these guidelines as background materials.

Next, the same group was asked to assess suitability of the analysed guidelines for various levels of teaching and training. Overall, 48% declared that the analysed guidelines were *'very suitable'*, and 33% that they were *'somewhat suitable'*, with the rest mostly not having a clear view about their suitability (**Figure 12**). Participants declared the highest suitability for postgraduate education (63% declaring *'very suitable'*) and professional training (53%) and less so for undergraduate training (47%) and other types of training and education (30%), suggesting

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that these guidelines fall short in supporting undergraduate level land administration students, who are the cornerstone for further professional development in the field.
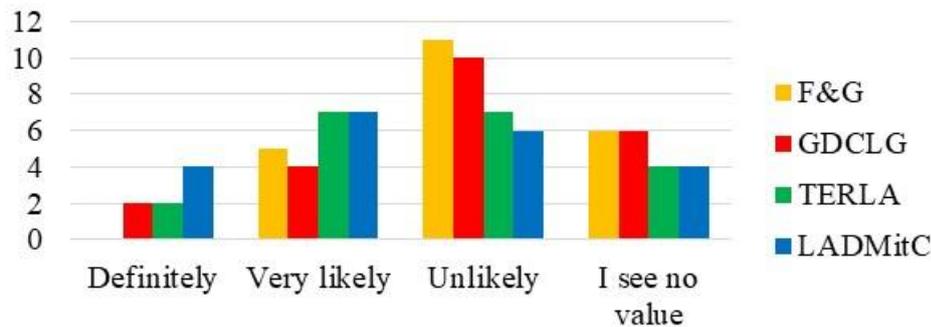

Figure 13. Potential usage of the analysed guidelines. *Source: Authors' own*

We then invited participants to provide more detailed comments on each of the four resources. Of the 22 detailed comments, 14 were positive highlighting their scope, universality and accessibility for various learners, and 3 were neutral. The remaining 5 were negative pointing out that the analysed guidelines are designed for global use, especially in mature economies. They were also deemed to be somewhat too academic and not pragmatic enough. Respondents suggested enhancing them with more case studies, and other resources including videos and simulations to illustrate their applicability in various socio-economic and political contexts. Finally, we asked participants, who were new to the analysed guidelines to familiarise themselves with the specific guidelines and to assess how likely they would use them for curriculum development (**Figure 13**). While 9% were clear that they would definitely use these resources and 27% will do so very likely, 64% do not see much or any value in using these resources to inform curricula.

Finally, as many participants operate outside of Africa, we asked them about other resources they use when developing land administration curricula. Naturally, most declared various national land regulations and policies. However, some also mentioned national educational regulations and standards, e.g. Quality Assurance Agency for Higher Education in the United Kingdom or government ordinances in Poland. Very few referred to internal HEI requirements, peer-review and academic research. Some mentioned professional organisations such as FIG, RICS and national professional associations. When it comes to textbooks, the main resource remains *Land Administration for Sustainable Development* (Williamson *et al.*, 2010). A very important role is also played by international organizations such as FAO, World Bank (e.g. Deininger *et al.*, 2012), International Land Coalition, UNGGIM, UN SDGs, GLTN and the European Union.

5   RECOMMENDATIONS AND CONCLUSIONS

The research conducted so far in this project confirms a strong need for education and training of suitably qualified land administration professionals. Following on the above presented

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analysis, we are now working on: (1) completion of Stage 2, during the Cape Town FIG Congress in May 2026; (2) completion of Stage 3 to provide more nuanced analysis of the above discussed data and discussion in view of the previous stages; and (3) conducting Stage 4: semi-structured interviews with Stage 3 participants who volunteered to be contacted for further study.

While we have established a clear reliance of curriculum developers on the four analysed guidelines, the popularity of these guidelines varies across the world as they can be of limited use outside of Africa. Curriculum developers also rely on a large number of other resources ranging from regulatory and policy documents relating to both land administration and education to standard textbooks and more specific publications by international organisations such as the World Bank, UN-Habitat and professional national and international associations. While having a wide array of good quality guidelines is undoubtedly an asset, curriculum developers may experience the paradox of choice, whereby having too many choices leaves one overwhelmed, insecure, and unable to decide or bluntly ignoring some resources.

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BIOGRAPHICAL NOTES

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