



Providing

Mini  
of

# Fit-For-Purpose Land Administration Secure Land Rights at Scale

## Launch of a New Special Issue of the Land Journal – 26 Articles

[www.mdpi.com/journal/land/special\\_issues/FFPLA](http://www.mdpi.com/journal/land/special_issues/FFPLA)

Prof Em Stig Enemark,  Honorary President, Aalborg University, Denmark  
Dr. Robin McLaren, Director, Know Edge Ltd., UK

Prof Christiaan Lemmen, University of Twente and Kadaster International, the Netherlands

**FIG Commission 7 Annual Meeting  
Melbourne, 23 September 2021**

# Evolution of the FFPLA Concept

- The phrase “Fit-For-Purpose” is commonly used for any intervention or activity that is appropriate, and of a necessary standard, for its intended use
- The FFPLA approach is not new as such ... what is new is the development of a FFPLA concept with guiding principles for country implementation.

**1990s**

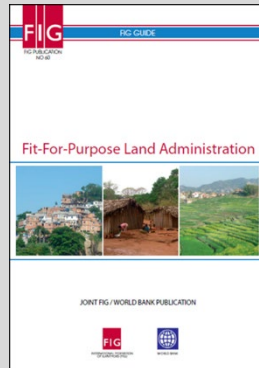
Land registration projects in Eastern Europe

China and Vietnam

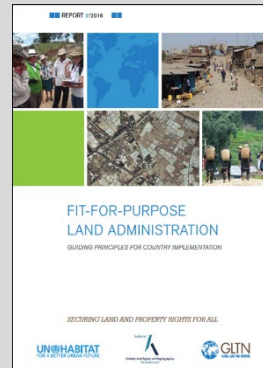
**2010s**

Rwanda, Ethiopia

**2014 – 2016**



FIG&WB



GLTN

Spatial-, Legal-, and  
Institutional Frameworks  
Guiding principles for  
Country Implementation

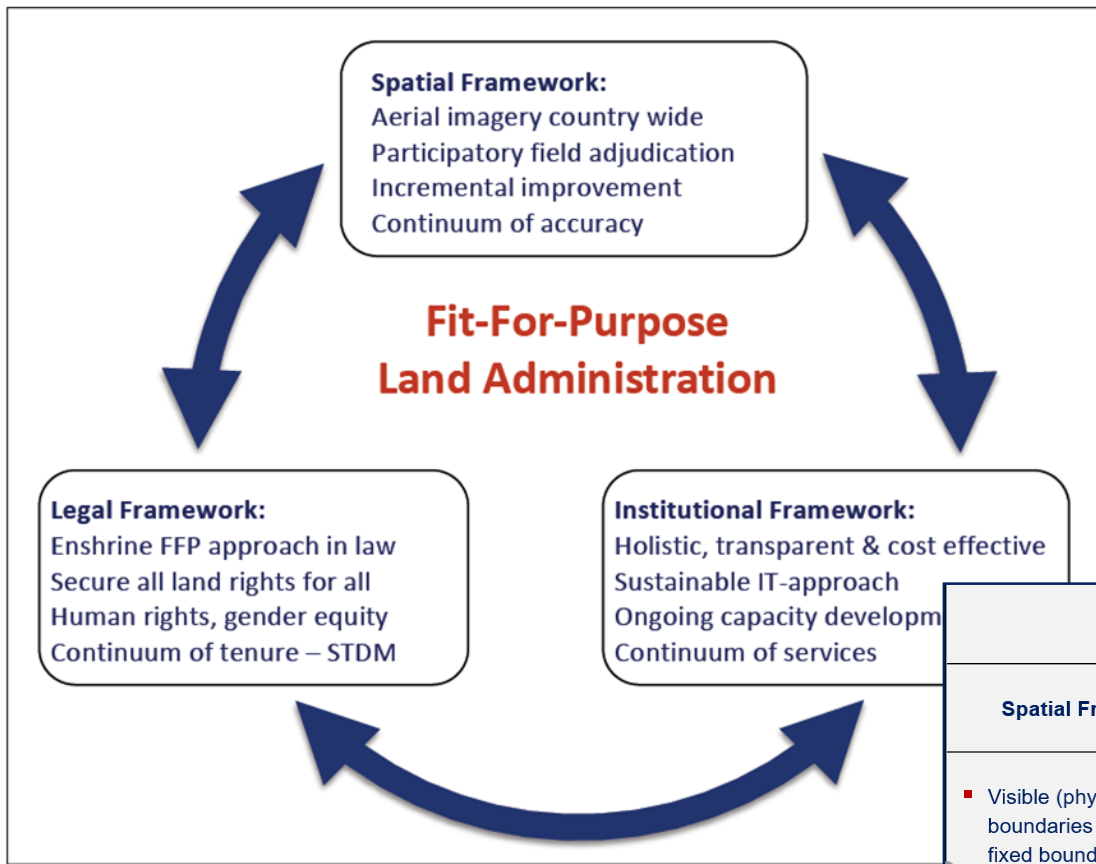
**2016 – 2021**

Ongoing projects in about 25 countries throughout the world

**2021**

Land Journal Special Issue: FFPLA - providing Secure Land Rights at Scale

# Fit-for-Purpose Land Administration – the Concept



- Three characteristics:**
- Focus on the Purpose
  - Flexibility
  - Incremental Improvement

<b>KEY PRINCIPLES</b>		
<b>Spatial Framework</b>	<b>Legal Framework</b>	<b>Institutional Framework</b>
<ul style="list-style-type: none"> <li>■ Visible (physical) boundaries rather than fixed boundaries</li> <li>■ Aerial / satellite imagery rather than field surveys</li> <li>■ Accuracy relates to the purpose rather than technical standards</li> <li>■ Demands for updating and opportunities for upgrading and ongoing improvement</li> </ul>	<ul style="list-style-type: none"> <li>■ A flexible framework designed along administrative rather than judicial lines.</li> <li>■ A continuum of tenure rather than just individual ownership</li> <li>■ Flexible recordation rather than only one register</li> <li>■ Ensuring gender equity for land and property rights.</li> </ul>	<ul style="list-style-type: none"> <li>■ Good land governance rather than bureaucratic barriers</li> <li>■ Holistic institutional framework rather than sectorial siloes</li> <li>■ Flexible IT approach rather than high-end technology solutions</li> <li>■ Transparent land information with easy and affordable access for all</li> </ul>

# New *land* Special Issue on FFPLA – Providing Secure Land Rights at Scale

Guest Editors: Stig Enemark, Robin McLaren, Christiaan Lemmen

14 articles from invited authors  
providing experience of:

## FFP conceptual innovations (Vol 1)

- Assessing procedures of maintenance
- Assessing adjudication and quality assurance for legal and geospatial data
- Applying innovative geospatial tools to FFPLA;
- Using decentralization as a strategy for scaling FFPLA;
- Assessing the role of FFPLA for violent conflict settings;
- Applying the FFP approach to wider land management functions
- Applying the FFP approach to urban resilience, climate change and Covid-19
- Exploring the role and opportunities of the private financial sector and public private partnerships within FFPLA

12 articles from invited authors  
providing experience of:

## FFP country implementation (Vol 2)

- Assessing the impacts of applying the FFPLA approach in China and Vietnam
- Analyzing the strategy for implementing a FFPLA approach in Indonesia, Nepal, Uganda and Mozambique
- Analyzing the cases of piloting FFPLA tools for land recordation in Ghana, Kenya, Uganda, Zambia and Namibia;
- Analyzing the impact of applying the FFPLA approach to South Africa;
- Using a FFP approach for upscaling of land administration in Benin;
- Applying the FFPLA approach in response to post disasters Caribbean
- Assessing FFPLA applications in Colombia and Ecuador.

# FFPLA approaches and experiences from around 20 countries throughout the world



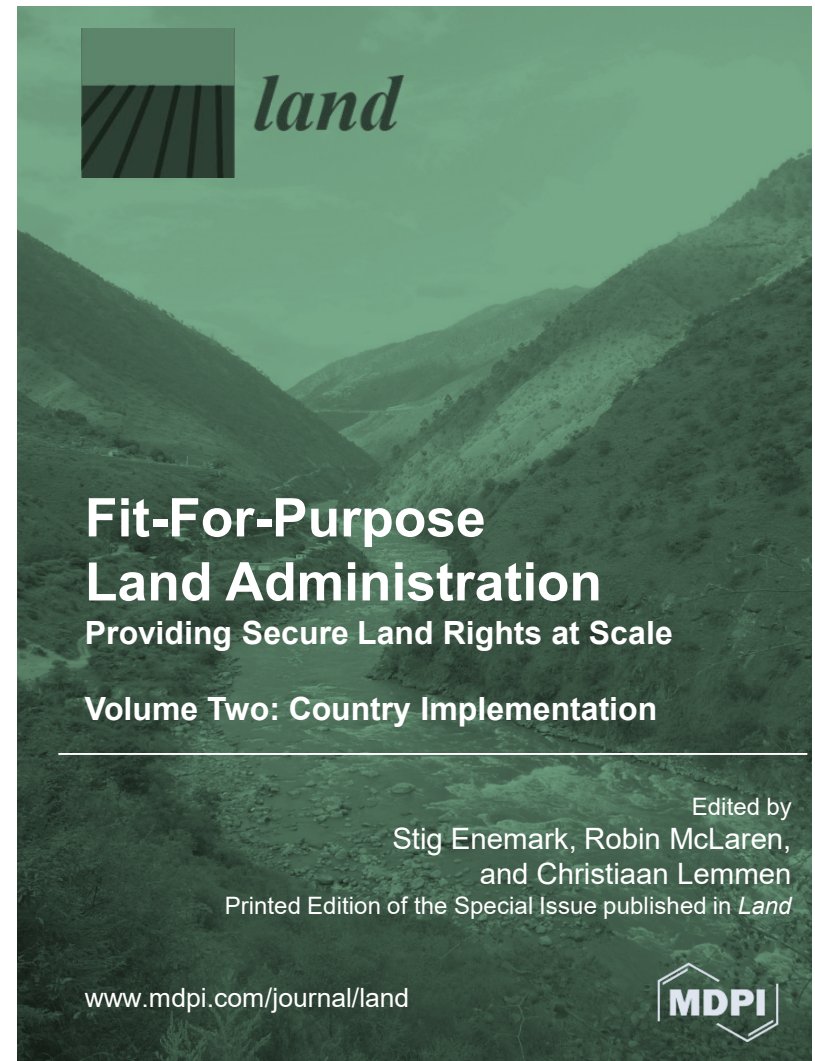
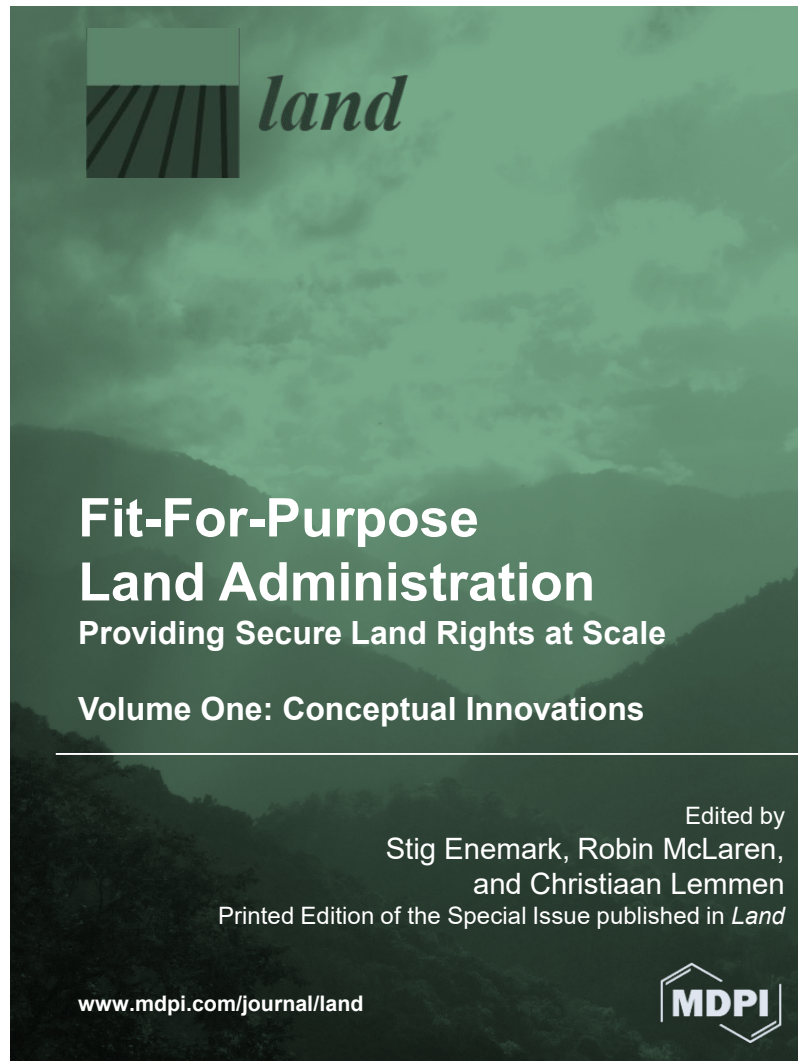
**Table 1. Conceptual Innovations**

	Title	Country focus	Application
Bennett et al.	Land Administration Maintenance: A review of the Persistent Problem and Emerging Fit-For-Purpose Solutions	Global	Methodologies of maintenance
Lengoiboni et al.	Initial Insights on Land Adjudication in a Fit-For-Purpose Land Administration	Global	Methodologies of adjudication
Augustinus and Temptra	Fit-For-Purpose Land Administration in Violent Conflict Settings	Sudan, Iraq, DRC, Honduras, Peru, Somalia,	Addressing land rights in conflict settings
Ho et al.	Decentralization as a Strategy to Scale Fit-for-Purpose Land Administration: An Indian Perspective on Institutional Challenges	India	Decentralization as a FFPLA tool
Mitchell et al.	The Benefits of Fit-for-Purpose Land Administration for Urban Community Resilience in a Time of Climate Change and COVID-19 Pandemic	Solomon Islands	FFPLA in support of Improving urban resilience
Kelm et al.	Applying the FFP Approach to Wider Land Management Functions	Global	The wider use of the FFPLA approach
Childress et al.	Fit-For-Purpose, Private-Sector Led Land Regularization and Financing of Informal Settlements in Brazil	Brazil	Applying a private sector led approach
Moran et al.	Exploring PPPs in Support of Fit-For-Purpose Land Administration: A Case Study from Côte d'Ivoire	Ivory Coast	Applying a PPP in support of FFPLA
Reydon et al.	The Amazon Forest Preservation by Clarifying Property Rights and Potential Conflicts: How Experiments Using Fit-for-Purpose Can Help	Brazil	Applying a FFP approach in support of forest preservation
Rocha et al.	Quality Assurance for Spatial Data Collected in Fit-for-Purpose Land Administration Approaches in Colombia	Colombia	Assessing the FFPLA data quality
Hall and Whittal	Do Design Science Research and Design Thinking Processes Improve the 'Fit' of the Fit-For-Purpose Approach to Securing Land Tenure for All in South Africa?	South Africa	Exploring the use of design science research and design thinking within FFPLA
Koeva et al.	Geospatial Tool and Geocloud Platform Innovations: A Fit-for-Purpose Land Administration Assessment	Rwanda, Kenya, Ethiopia, and Zanzibar	Assessing the use of geospatial tools in Africa
Chipofya et al.	SmartSkeMap Scalable Documentation for Community and Customary Land Tenure	Global	Spatial documentation of community land tenure
Biraro et al.	Good Practices in Updating Land Information Systems that Used Unconventional Approaches in Systematic Land Registration	Global	Updating practices in unconventional land registration

**Table 2. Country Implementations.**

	Title	Country focus	Application
Byamugisha	Experiences and Development Impacts of Securing Land Rights at Scale in Developing Countries: Case Studies of China and Vietnam	China, Vietnam	Securing land rights at scale in China and Vietnam
Martono et al.	The Legal Element of Fixing the Boundary for Indonesian Complete Cadastre	Indonesia	Applying FFPLA in Indonesia
Panday et al.	Securing Land Rights for All through Fit-for-Purpose Land Administration Approach: The Case of Nepal	Nepal	Applying FFPLA in Nepal
Musinguzi et al.	Fit for Purpose Land Administration: Country Implementation Strategy for Addressing Uganda's Land Tenure Security Problems	Uganda	Applying FFPLA in Uganda
Chigbu et al.	Fit-for-Purpose Land Administration from Theory to Practice: Three Demonstrative Case Studies of Local Land Administration Initiatives in Africa	Ghana, Kenya, Namibia	Applying FFPLA approaches in Africa
Antonio et al.	Transforming Land Administration Practices through the Application of Fit-For-Purpose Technologies: Country Case Studies in Africa	Uganda, Kenya, Zambia	Applying the STDM in Africa
Mekking et al.	Fit-For-Purpose Upscaling Land Administration – A Case Study from Benin	Benin	Applying FFPLA in Benin
Balas et al.	The Fit for Purpose Land Administration Approach-Connecting People, Processes and Technology in Mozambique	Mozambique	Applying FFPLA in Mozambique
Williams-Wynn	Applying the Fit-for-Purpose Land Administration Concept to South Africa	South Africa	Assessment of applying FFPLA in South Africa
Griffith-Charles	Application of FFPLA to Achieve Economically Beneficial Outcomes Post Disaster in the Caribbean	Caribbean Islands	Applying FFPLA in the Caribbean
Becerra et al.	Fit-For-Purpose Applications in Colombia: Defining Land Boundary Conflicts between Indigenous Sikuani and Neighbouring Settler Farmers	Colombia	Applying FFPLA in Colombia
Todorovski et al.	Assessment of Land Administration in Ecuador Based on the Fit-for-Purpose approach	Ecuador	Assessment of applying FFPLA in Ecuador

A printed version of two volumes will also be published  
and available online





# Key Experiences and Lessons Learnt

- **FFPLA Pilot projects** – are easy to implement and well accepted and understood by the local community. However – it must be scalable.
- **FFPLA National projects** – can be completed at affordable costs < 10 USD per parcel and within a few years by using a participatory approach and working in parallel throughout the country. This is in principle a national top-down approach that requires strong political will and support from key senior civil servants.
- **Technology development** – is a key driver in terms of providing the relevant mapping and registration tools e.g. machine learning to extract information from drone imagery.
- **Innovative financing** – can be obtained e.g. through new types of PPP and private sector support for regularization and upgrading of informal settlements
- **The FFPLA approach is unfolding** beyond providing security of tenure – e.g. for mitigating land issues in violent conflict settings, and for wider land management functions such as valuation, urban resilience, climate change and pandemics.
- **The FFPLA approach is gaining momentum** – and growing acceptance within the (younger) land professional community as a game changer in achieving key aspects of the global agenda, the SDGs, towards greater social equity, leaving no one behind.

# Nepal



## FIT-FOR-PURPOSE LAND ADMINISTRATION

A COUNTRY LEVEL IMPLEMENTATION STRATEGY  
FOR NEPAL




SECURING LAND AND PROPERTY RIGHTS FOR ALL  
SUSTAINABLE LAND MANAGEMENT, PROSPEROUS LIFE AND DEVELOPMENT




- **Area:** 140.800 km<sup>2</sup> – 27% is arable; Population: 28 mill;
- **Land parcels:** About 75% of the arable land is formally registered representing about 30 mill land parcels. About 10 mill parcels are outside the formal land register. The mega earthquake of 2015 destroying about 1 mill houses.
- **FFP Strategy:** Following a range of pilot projects, Nepal has developed a strategy for implementing a FFP approach for registering 10 mill land parcels within 5 years.

# Uganda



REPUBLIC OF UGANDA  
MINISTRY OF LANDS, HOUSING AND URBAN DEVELOPMENT



FIT FOR PURPOSE LAND ADMINISTRATION  
COUNTRY IMPLEMENTATION STRATEGY

September 2018

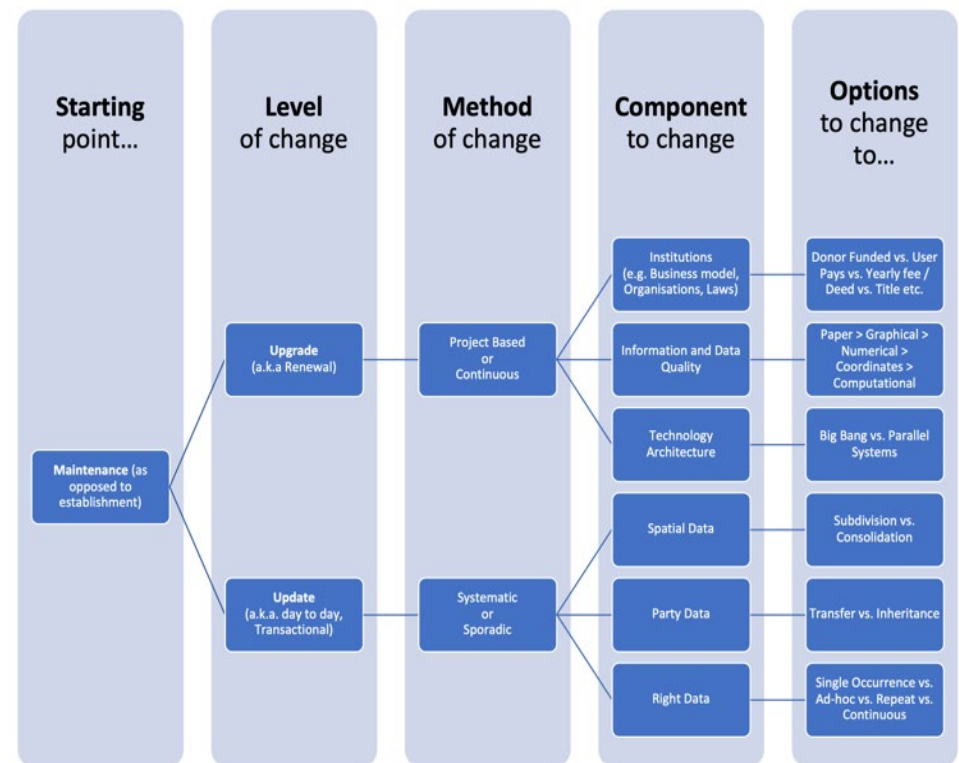


- **Area:** 200.000 sq.km (excl. Lake Victoria waters)  
27% is arable; Population: 43 mill;
- **Land parcels:** About 25 mill of which less than 10% is registered. Land tenure: Native freehold 22% (grey), Mailo 28% (yellow) and Customary 50% (green).
- **FFP Strategy:** Based on pilot projects, Uganda has developed a strategy for implementing a FFP approach for registering 23 mill land parcels within 10 years and for a total cost of 10-20 USD per parcel – even though some resistance is voiced from the land surveyors.

# Maintenance, updating and upgrading

**Maintenance must be secured up front of any land recordation project.** This may sound obvious but is often not the case (Rwanda). Capacity development is fundamental.

- **Updating** can be sporadic or (preferably) systematic. It includes spatial data, party data as well as rights data. It relates to any change of land boundaries, land transfer and inheritance.
- Systematic updating can be encouraged in various ways such as means of decentralisation, tax relief, etc.
- **Upgrading** can be project based or a continuous process. It can be facilitated by institutions, data quality and technology architecture, e.g. for supporting a wider national spatial data infrastructure



A model for analysing maintenance in land administration.  
Bennett, et al., 2021

# Public - Private partnerships

- **Providing secure land rights is only a start.** The derived opportunities for the landowner / right holder should be facilitated e.g. in relation to financial institutions, agricultural organisations, etc.
- **Public-Private Partnerships** can support these processes in combination with the land recordation. In the case of Ivory Coast a group of agricultural related private companies formed a *Land Partnership* (CLAP) in support of providing affordable and acceptable titling documents at scale.
- **Purchase of land for informal settlers** can be facilitated through loans managed by private institutions. In the case of Brazil a *private social enterprise* (Terra Nova) acts as a coordinator and broker for buying out the underlying private owners at discounted values and coordinating with municipal governments to provide infrastructure.



Ivory Coast

# The wider FFP approach

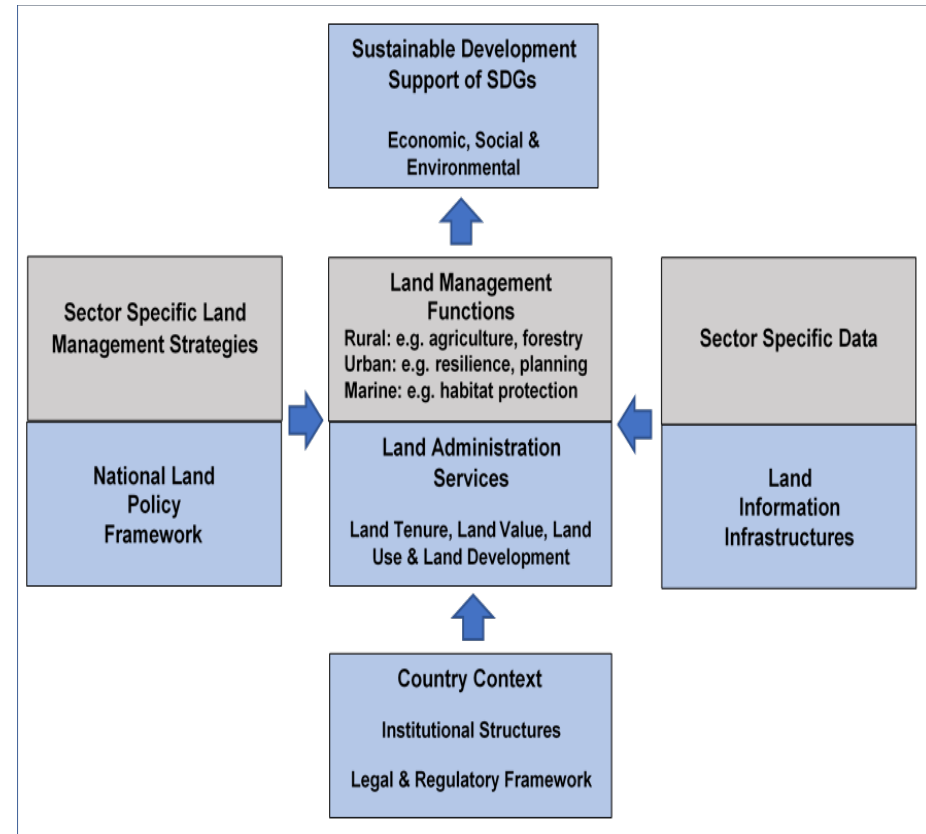
**The FFP approach has a wider reach.** Areas such as valuation and land use planning and management, can benefit from the same kind of principles and be integrated into the land recordation process (use cases from the World Bank).

**The current focus of FFP is on land tenure.** However, the general characteristics of the FFP paradigm also relate to functions such as:

- Land Valuation and Taxation.
- Resilient Housing.
- Solid Waste management.
- Master Planning, Urban Digital Twins, Disaster Risk management, etc.

## Innovative use of emerging technologies

- Data captured from drone and street-level imagery can be shared and reused across a wide range of land administration and land management functions allowing integration of discrete land programs.
- Machine Learning can be used to extract data from imagery, e.g. building materials



Extended Version of the Land Management Paradigm (McLaren, 2021)

# The Way Forward



- **The quest for capacity development.** Decentralised management of land records require facilities and skilled staff.
- **Education and training** programmes must include Responsible Land Administration (GLTN)
- **The need for cooperation** between donors, national government, land professionals and civil society organisations
- **The need for awareness campaigns** at global, regional, national and local levels.



**FIG Com 7** has a key role to play in promoting and driving this FFPLA agenda as part of the new work plan for the next term of office